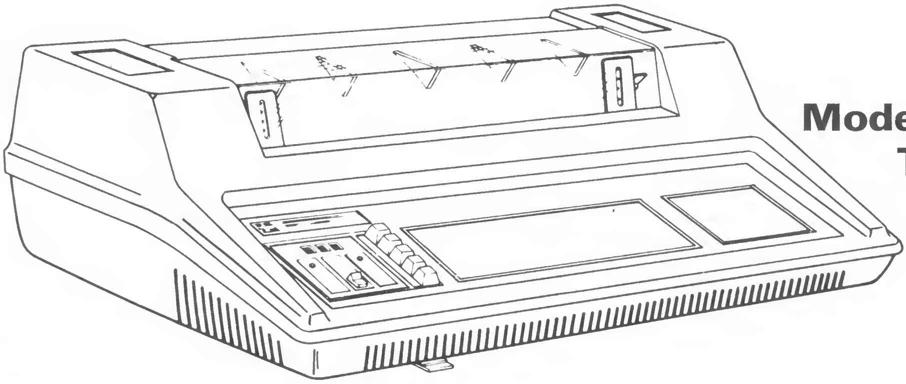
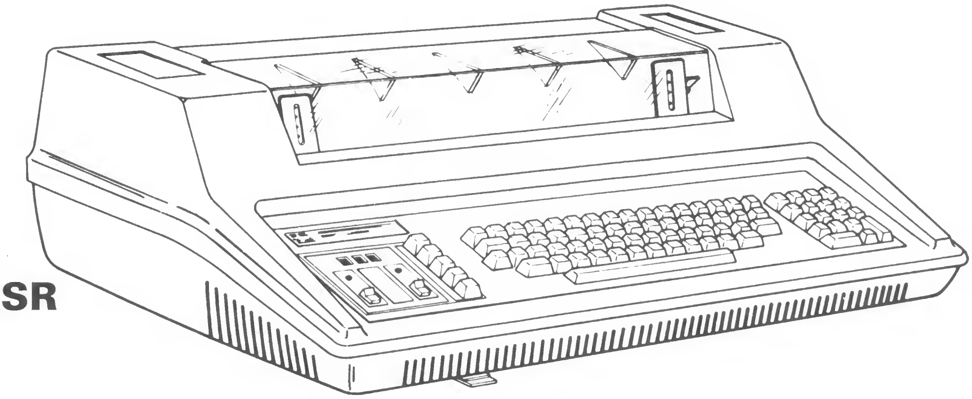
OMNI 800
electronic data terminals

MAINTENANCE MANUAL



Model 820/825 RO Terminal



Model 820/825 KSR Terminal

Manual No. 2206552-9701, Rev. B
1 March 1983

TEXAS INSTRUMENTS

This maintenance manual applies to Model 820 and 825 KSR and RO Terminals with product codes 04821, 04822, 04825, and 04826. For Model 820 KSR Terminals with product code 04820, refer to the *Model 820 KSR Maintenance Manual*, TI Part No. 999853-9701. Product code numbers constitute the first five digits of the serial number on the ID label of each terminal.

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Preface

This manual provides information for installing, operating, maintaining, and replacing assemblies and subassemblies of the Texas Instruments *OMNI 800** Model 820 and Model 825 Keyboard/Send Receive (KSR) and Receive-Only (RO) Data Terminals. The manual is divided into the following sections:

Section 1, Introduction — contains a list of terminal specifications and features, locates the major terminal components, and identifies the various terminal versions and options.

Section 2, Installation — provides instructions for selecting a suitable site for the terminal, installing the supplies, making cable connections, applying power, performing terminal checkout, and configuring the terminal.

Section 3, Operation — contains a complete functional description of the terminal, including the use of controls and indicators.

Section 4, Theory of Operation — identifies the functional components of the terminal and provides detailed discussions of the operation of each functional component.

Section 5, Maintenance — contains maintenance procedures, adjustment procedures, and removal and replacement procedures for all replaceable assemblies.

Section 6, Assembly Drawings and Lists of Materials — contains assembly drawings and parts lists for all replaceable assemblies.

Section 7, Diagrams — contains logic diagrams.

Appendixes

A — Character Set Dot Matrix

B — Character and Control Codes

C — Terminal Options and Accessories

D — Ribbon and Paper Recommendations

E — Installation Instructions For Option Kits

F — Glossary of Logic Signals

G — Recommended Data Set Options and Cabling Information

References: Other manuals for the Model 820/825 Terminals are available under the following TI part numbers:

- *Model 820 KSR Operator's Manual* — 2208225-9701
- *Model 820 RO Operators's Manual* — 2206553-9701
- *Model 825 KSR User's Guide* — 2207425-9701
- *Model 825 RO Operator/System Manual* — 2207437-9701

Earlier models, with product code 04820 (first five digits of the serial number of the terminal), are described in the following manuals:

- *Model 820 KSR Maintenance Manual* — 999853-9701
- *Model 820 KSR User's Guide* — 999854-9701

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Section 1

Introduction

1.1 GENERAL

The Texas Instruments *OMNI 800* Model 820 and Model 825 Keyboard/Send Receive (KSR) Terminal shown in Figure 1-1 consists of:

- A printer which provides one original and up to five copies of data received via a communications interface.
- An operator panel which permits entry of data on the keyboard for transmission to a host system or to other terminals via a communications interface.

The Texas Instruments *OMNI 800* Model 820 and Model 825 Receive-Only (RO) Terminal shown in Figure 1-2 consists of:

- A printer which provides one original and up to five copies of data received via a communications interface.
- An operator panel which enables selection of the mode of operation for the terminal and control of some printer functions.

NOTE

> The Model 820 and Model 825 KSR and RO Terminals are mechanically identical and differ only in certain minor operating capabilities such as printing speed, buffer capacity, and baud rate. Such differences are noted in the text and other material in this manual. Assembly drawings and lists of materials are provided for all models in Section 6; electronic schematics are contained in Section 7.

1.2 FEATURES

The Model 820/825 KSR is a self-contained data terminal, similar in appearance to an office typewriter, which communicates in an attended or unattended mode via appropriate transmission media. The Model 820/825 KSR is suitable for conversational, data/text entry, inquiry-response, and computer console applications.

The Model 820/825 RO is similar in appearance and function to the Model 820/825 KSR, except that the RO terminal has an operator keypad instead of an alphanumeric keyboard. It communicates in an attended or unattended mode via appropriate transmission media, and is most suitable for those applications requiring a hard-copy, medium-speed output device.

The Model 820 Terminals transmit and receive serial, asynchronous data at rates from 110 to 9600 baud and are capable of printing at speeds up to 150 characters per second (cps).

The Model 825 Terminals transmit and receive serial, asynchronous data at rates from 110 to 600 baud and are capable of printing at speeds up to 75 cps.

Printing by all models is done by a serial, wire-matrix impact mechanism which prints on conventional paper and features multiple copy, wide carriage, and optional forms-handling capabilities. An internal buffer memory enables the Model 820/825 Terminals to receive burst data at transmission rates which exceed their respective maximum printing speeds.

The control electronics consist primarily of a stored-program microprocessor system which provides a high degree of flexibility with the fewest possible components. All operating parameters (e.g., communications rate, parity, etc.) can be altered from the operator panel, thereby eliminating the need for hardware strappable options and minimizing special operator controls. The modular construction of the electrical and mechanical assemblies greatly facilitates maintenance and repair.

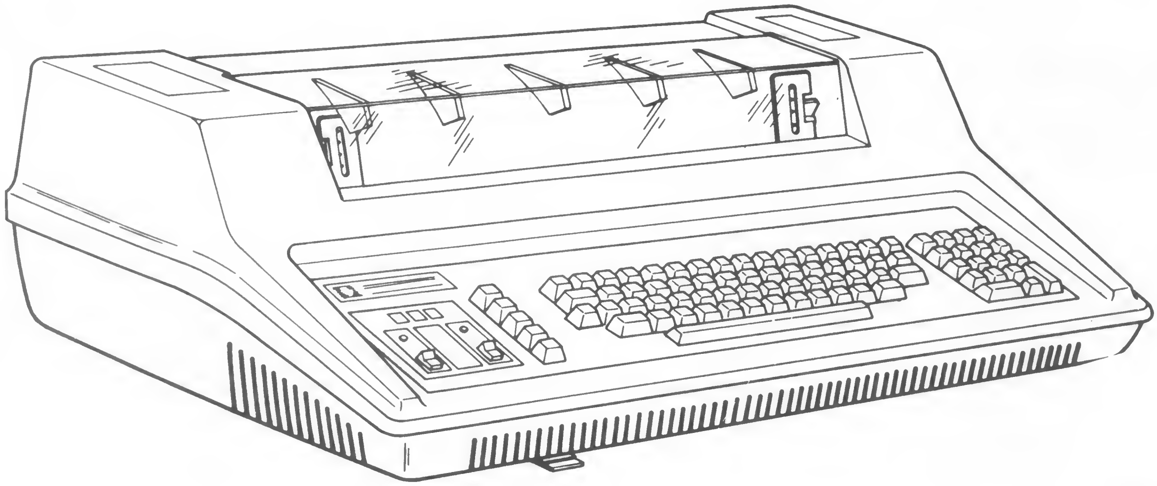


Figure 1-1. Model 820/825 KSR Terminal

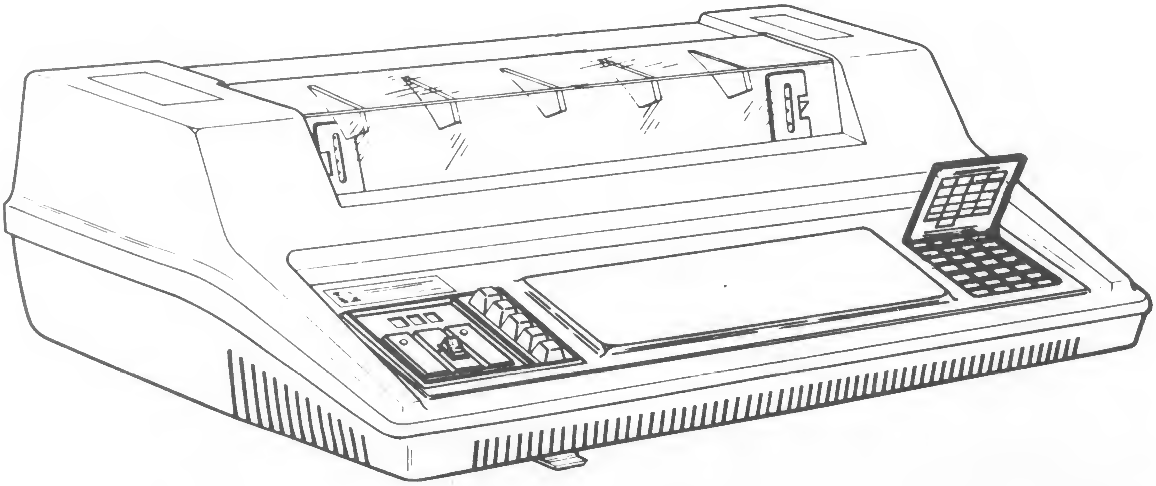


Figure 1-2. Model 820/825 RO Terminal

1.3 SPECIFICATIONS

The following specifications apply to the Model 820/825 KSR and RO Terminals:

Power Requirements

Voltage:	90-130 Vac, 47-63 Hz, single phase 180-260 Vac, 47-63 Hz, single phase
Power:	50 VA max, idle 75 VA average printing 150 VA max executing form feed

Physical Dimensions

Size:	660.4 mm (26.0 in) W x 533.4 mm (21.0 in) D x 209.5 mm (8.25 in) H
Weight:	18.6 kg (41 lb) excluding options

Acoustic Noise

Level:	Less than 60 dB (A-weighted), measured 0.9 m (3.0 ft) directly in front, under free field conditions, while printing at maximum speed

Environmental (Operating)

Temperature:	5°C to 40°C (41°F to 104°F)
Relative humidity:	5% to 90% (no condensation)
Altitude:	To 3046 m (10 000 ft)

Printer

Method:	Wire matrix impact
Speed:	
Model 820	150 characters per second
Model 825	75 characters per second
Pattern:	9 x 7 dot matrix
Character set:	95 ASCII plus 33 control character graphics plus parity error symbol
Characters per line:	132 max (218 with compressed print option)
Character spacing:	10 per 25.4 mm (1 in) (or 16.5 per in)
Line spacing:	6 per 25.4 mm (1 in) or 8 per 25.4 mm (1 in)
Paper drive:	Two pinfeed tractors (4 pin)
Paper feed:	Rear or bottom
Paper width:	76.2 mm (3.0 in) to 377.8 mm (14.875 in)
Paper type:	Continuous feed, fanfold, or multipart (original plus five copies, Model 820; original plus three copies, Model 825)
Ribbon:	54.8 m (60 yards) or 36.58 m (40 yards), auto reversing
Line feed time:	30 ms
Paper slew rate:	190.5 mm (7.5 in) per second
Adjustments:	Forms width, thickness, and alignment
Form length:	279.4 mm (11 in) (RO programmable up to 355.6 mm (14 in) long)
Detection:	Paper-out, carriage jam

Keyboard	KSR	RO
Type:	Full ASCII	Hexadecimal special
Layout:	Typewriter	Calculator
Rollover:	N-key	n/a
Indicators:	Terminal and communications status	

Communications

Interface:	EIA RS-232-C
Type transmission:	Asynchronous
Code:	ASCII
Speeds:	
Model 820	110, 200, 300, 600, 1200, 2400, 4800, 9600 baud
Model 825	110, 200, 300, 600 baud
Modes:	
Model 820	Full duplex, half duplex, half duplex with reverse channel
Model 825	Full duplex only
Parity:	Transmit ODD, EVEN, MARK, SPACE — Check ODD, EVEN, none
Receive buffer:	
Model 820	1280 characters; 4K buffer optional
Model 825	256 characters
Line control:	Autoanswer, autodisconnect, printer READY/BUSY
Identification:	21-character answerback memory

Options

Printer:	Compressed print (16.5 characters per inch) 218 characters per line maximum
Control:	Device/forms control
Keyboard:	18-key numeric keypad (KSR only). APL/ASCII keyboard (KSR only). International keyboards (KSR only)
Interface:	dc current loop
Configuration:	User-specifiable default parameter sets (up to eight); user-specifiable protected parameter sets (up to eight); protected answerback memory

1.4 OPTIONS

The following features are available as options for the Model 820/825 Terminals:

- Compressed print — provides 16.5 and 10.0 characters per 25.4 mm and allows up to 218 characters per line in 16.5 character pitch.
- Device/forms control — provides format capabilities, including horizontal and vertical tabs, margin and form length control, printer ON/OFF, etc.
- Numeric keypad, KSR only — an 18-key cluster, including user-programmable **ENTER** key, similar to a calculator keyboard for fast number entry.
- Alternate character sets — APL, Katakana.
- International character sets — England, France, Germany, Denmark/Norway, and Sweden/Finland.
- International keyboards, KSR only — Katakana, England, France, Germany, Denmark/Norway, Sweden/Finland, and Spain.
- Communications interface — dc current loop.
- Configuration sets — provides up to eight user-defined configuration parameter sets to facilitate the use of the terminal with a variety of host systems. Also, sets can be obtained with a protected, permanent answerback memory message.

1.5 ACCESSORIES

The following useful accessories are available for the Model 820/825 KSR and RO Terminals:

- Paper basket — holds the printed output
- Terminal stand — for user convenience
- Acoustic enhancement kit — significantly reduces noise
- Interface cables — for console and special connections

1.6 IDENTIFICATION

The particular configuration of the Model 820/825 KSR or RO may be identified by the "Printer Configuration" label affixed inside the terminal cover. Table 1-1 defines the abbreviations used to identify the Model 820/825 Terminals.

Table 1-1. Model 820/825 KSR Hardware Configuration Abbreviations

Printer Configurations	
BSC	Basic terminal
115 V	115-volt operation
220 V	220-volt operation
CSA	Standard EIA RS-232-C interface
PSF	Standard printer (10 characters per inch)
PCF	Compressed print option (10 and 16.5 characters per inch)
MFG	Device/forms control (DFC) option
B4K	Expanded receive buffer option (820 only)
Keyboard Options	
KFS	Standard full ASCII (KSR)
KFN	Standard full ASCII with numeric pad (KSR)
KAS	APL/ASCII (Model 820 KSR only)
KAN	APL/ASCII with numeric pad (Model 820 KSR only)
KKS	Katakana/ASCII (Model 820 KSR only)
KKN	Katakana/ASCII with numeric pad (Model 820 KSR only)
KES	European/ASCII (KSR)
KEN	European/ASCII with numeric pad (KSR)
KCP	Standard RO control panel (RO)
KAP	APL RO control panel (RO)
KKP	Katakana RO control panel (RO)
Communication Options	
CTY	20-mA dc current loop
CTB	20-mA dc current loop
Configuration Options	
MDP	Default configuration option
MPP	Protected configuration option
MAP	Protected ABM option
MHP	Protected HERE IS option
Character Set Suboptions	
UKF	United Kingdom ASCII
DNF	Danish/Norwegian ASCII
SFF	Swedish/Finnish ASCII
FRF	French ASCII
GRF	German ASCII
SPF	Spanish ASCII
SPT	Spanish ASCII (text editing)

Section 2

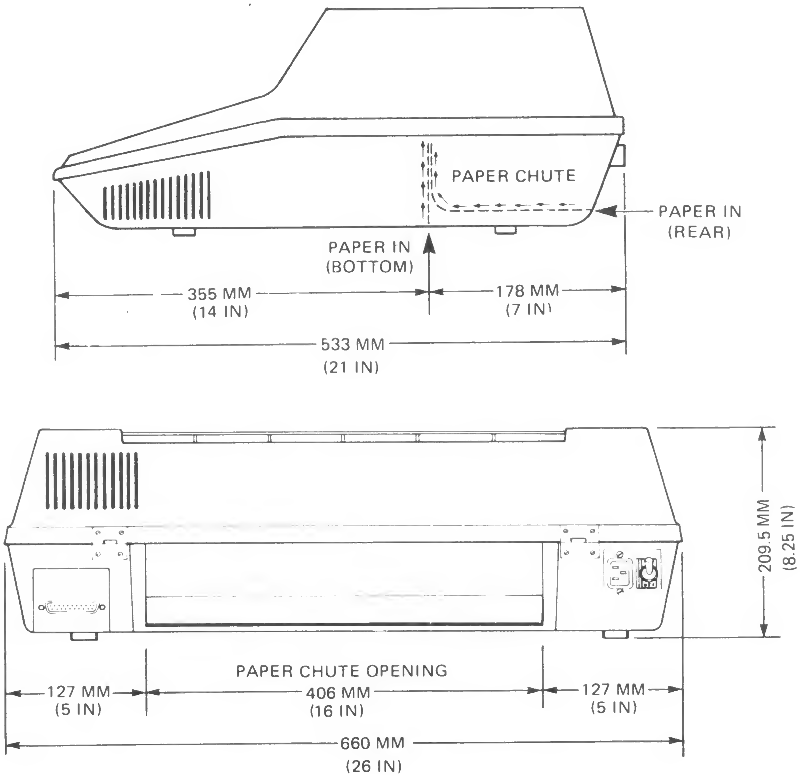
Installation

2.1 INTRODUCTION

This section provides suggestions for selecting a suitable location for your terminal, installing the supplies, making power and interface connections, applying power, performing checkout procedures, and selecting the appropriate operating parameters. This discussion assumes that the Model 820/825 KSR/RO has been removed from the shipping container and that all shipping fixtures are removed from the terminal.

2.2 SPACE REQUIREMENTS

The Model 820/825 KSR or RO Data Terminal occupies a flat surface area 660 mm (26 in) wide by 609 mm (24 in) deep, including cable clearance of 76 mm (3 in). Figure 2-1 gives the outline dimensions of the Model 820/825 KSR/RO, including space for adequate ventilation. Take particular care not to obstruct the cooling fan intake and exhaust louvers located on all four sides of the terminal.



2206552-3

Figure 2-1. Physical Dimensions

An unobstructed paper feed path must be provided behind or below the terminal for the paper supply. A method of holding the printer output paper must also be provided if the optional paper basket is not used. The terminal should not be operated in an environment where humidity, temperature, or other specifications listed in Table 1-1 may be exceeded. A sturdy table capable of adequately supporting 18.6 kg (41 lb) is suitable if the optional floor mounting stand is not used. Regardless of the mounting selected, take care to ensure that the paper chute underneath the terminal does not bear any weight of the terminal and is not subjected to any pressure which could deform it.

2.3 POWER CORD CONNECTION

Note the "Printer Configuration" label affixed to the inside of the cover to determine the input voltage requirements, and then position the terminal close to an appropriately grounded electrical outlet so that the supplied power cord can be connected. Referring to Figure 2-2, locate the power **ON/OFF** switch and the power cord receptacle at the rear of the Model 820/825 KSR and proceed as follows:

1. Ensure that the power **ON/OFF** switch is in the **OFF** (down) position.
2. Attach the female connector of the power cord to the terminal power cord receptacle (next to the **ON/OFF** switch at the rear of the terminal).
3. Attach the male connector of the power cord to the electrical outlet.

WARNING

To ensure safe operation of the terminal, always use a properly grounded power source with the correct voltage, frequency, and current capacity.

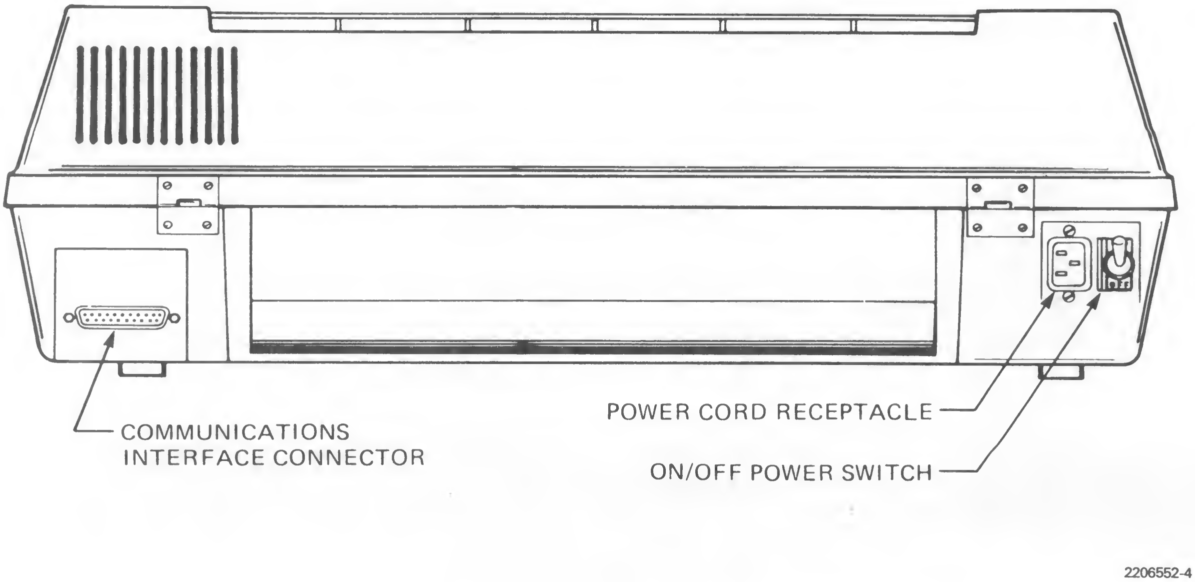
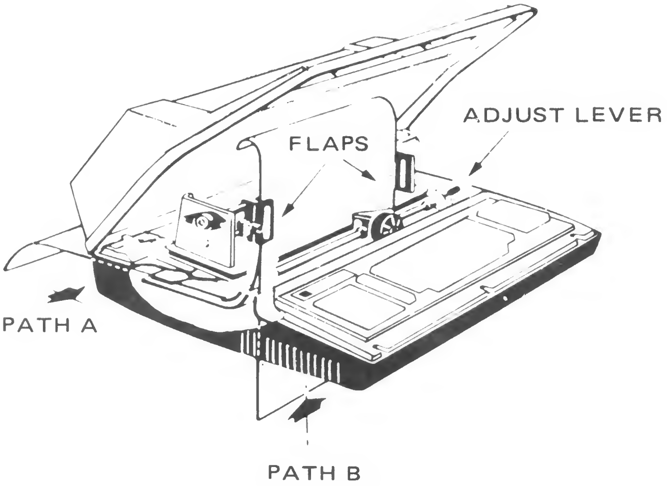


Figure 2-2. Model 820/825 KSR/RO Rear Panel

2.4 PAPER LOADING

The Model 820/825 KSR or RO accommodates continuous form paper with standard sprocket holes on each side in widths from 76.2 to 377.8 mm (3.0 to 14.875 in). Single or multipart forms meeting the specifications of TI Publication No. 999860-9701, *OMNI 800 Printer Ribbon and Paper Recommendations* (Appendix D) may be used. Referring to Figure 2-3, locate the controls for forms thickness adjustment (adjust lever) and forms width adjustment (flaps) and proceed as follows:



2206552-5

Figure 2-3. Paper Loading

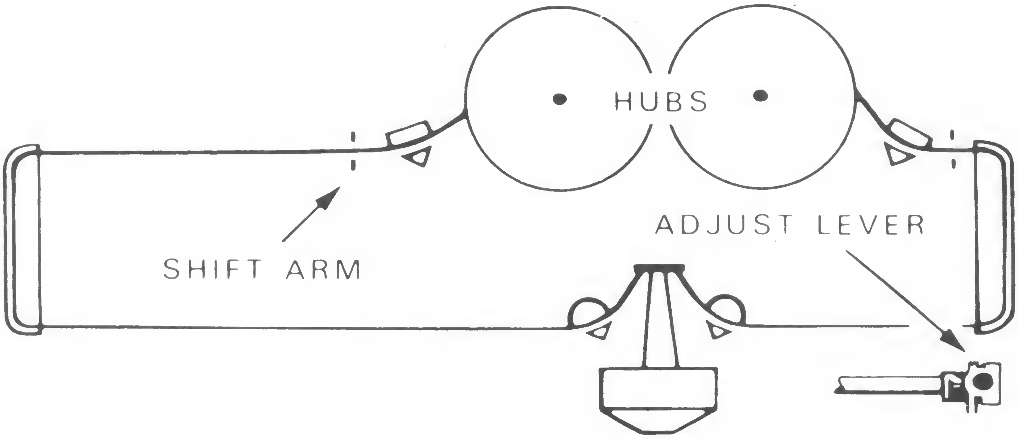
1. Lift the terminal cover and open the flaps on both paper tractors.
2. Using the printhead adjust lever, move the printhead away from the platen.
3. Feed the paper into either the rear paper chute (path A) with the printing side of the paper down or the bottom paper chute (path B) with the printing side of the paper facing you, until the paper appears at the platen.
4. Loosen the locking lever on the right tractor and move the tractor left or right as necessary to accommodate the paper width.
5. Place the paper in both tractors so that corresponding holes and pins engage the paper on both sides.
6. Close both tractor flaps.
7. Adjust the right tractor as necessary to remove slack in the paper, but not so tight that the paper perforations are torn; then tighten the locking lever.
8. Check that the paper supply is aligned in the paper chute and that the paper does not rub the side of the paper chute.
9. Reposition the printhead using the adjust lever.
10. Close the terminal cover.

2.5 RIBBON INSTALLATION

The Model 820/825 KSR and RO use a nylon ribbon mounted on two spools as described in TI Publication No. 999860-9701, *OMNI 800 Printer Ribbon and Paper Recommendations* (included in Appendix D).

CAUTION

Use of ribbons which do not meet TI specifications may seriously shorten printhead life and void the warranty.



2206552-6

Figure 2-4. Ribbon Path

Referring to Figure 2-4, proceed as follows:

1. Lift the terminal cover.
2. Using the printhead adjust lever, move the printhead away from the platen.
3. Place the full ribbon spool on either hub so that the ribbon exits from the far side.
4. Feed the ribbon along the path shown in Figure 2-4.
5. Place the empty ribbon spool on the other hub and remove slack from the ribbon by manually rotating one of the spools in the appropriate direction.
6. Check that the empty spool ribbon eyelet is between the spool and the shift arm, and that the ribbon is properly positioned between the vertical ribbon guides on each side of the printer.
7. Reposition the printhead using the adjust lever.
8. Close the terminal cover.

2.6 POWER-ON PROCEDURE

Referring to Figure 2-5, locate the **LINE/•/LCL** switch and the terminal status display and proceed as follows:

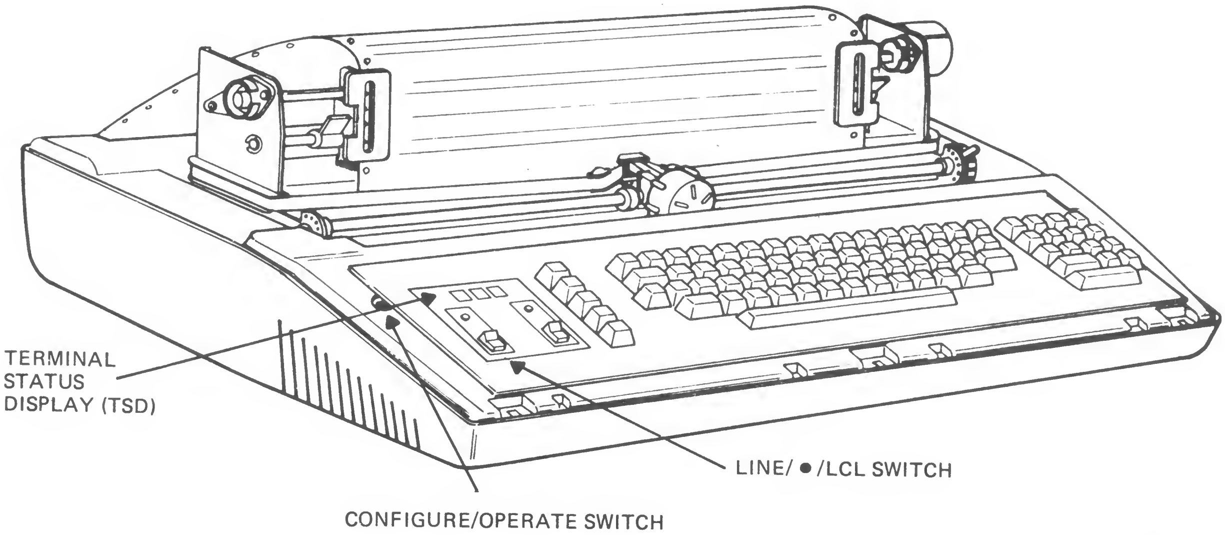


Figure 2-5. Power-On Procedure Switches (Terminal Cover Removed)

1. Set the **LINE/•/LCL** switch to the **LCL** position (lower edge depressed). The **LINE/•/LCL** switch is the only switch on the Model 820/825 RO operator control panel. See Figure 2-6.
2. Set the power **ON/OFF** switch to the **ON** position (up).
3. Ascertain that the following events occur:
   - The terminal status display (TSD) shows **888** and the LED indicators are illuminated.
   - The printhead aligns to the left margin.
   - The audible tone sounds.
   - The TSD shows **001** (or the left margin setting, if the left margin is not set to column 1) and the LED indicators go off.

NOTE

If the TSD shows **[** as the leftmost digit, the machine has powered on in the configure mode. If the unit is a KSR model, lift the terminal cover and set the configure/operate key to operate. The display should now show the left margin column number. An RO version cannot power up in configure mode.

2.7 POWER-OFF PROCEDURE

To remove power from the terminal, simply set the power **ON/OFF** switch to the **OFF** position (down). The Model 820/825 Terminals retain operating and format parameters in a nonvolatile memory so that the terminal is ready to operate when power is again applied.

2.8 OPERATIONAL CHECKOUT AND PRINTHEAD ADJUSTMENT

The following self-tests perform operational checkout of 95 percent of the terminal electronics. If the correct test results are not observed, refer to Section 5, Maintenance.

Note that it may be necessary to readjust the printhead occasionally to compensate for ribbon wear.

CAUTION

Do not operate the printer without ribbon and paper installed. Printhead damage will occur and the warranty may be voided.

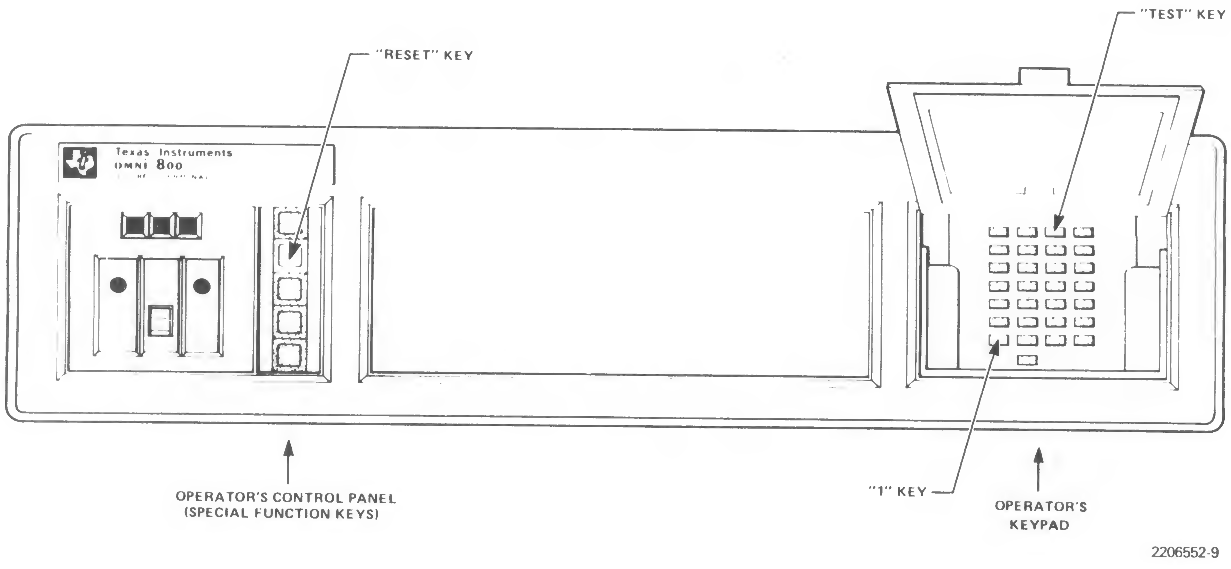
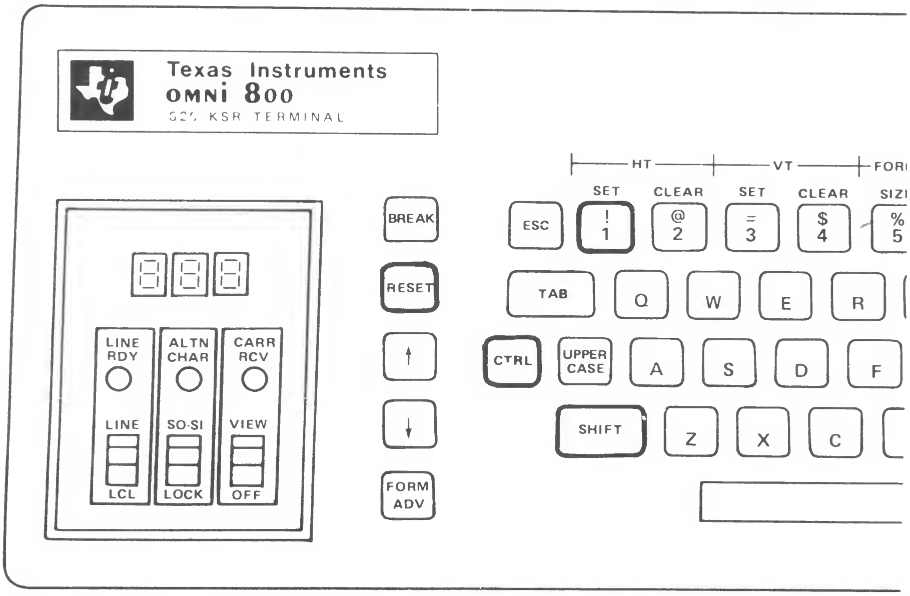


Figure 2-6. **Controls for Model 820/825 RO Self-Test**

2.8.1 Model 820/825 KSR

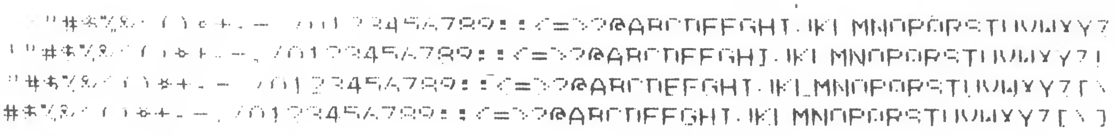
Referring to Figure 2-7, locate the **CTRL, SHIFT, !/1,** and **RESET** keys on the operator panel and proceed as follows:



2206552-8

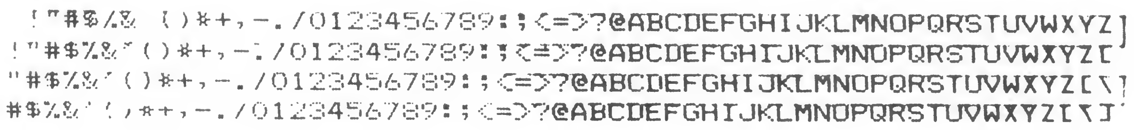
Figure 2-7. Controls for Model 820/825 KSR Self-Test

1. Set the **LINE/•/LCL** switch to **LCL**.
2. Initiate the self-test by pressing and holding the **CTRL** and **SHIFT** keys, and then momentarily press the **!/1** key. Then release all keys.
3. Observe that a repetitive, ripple pattern (called a barberpole) is printed and that the TSD displays **[39**, flashing.
4. If the printed characters are partially formed or have missing dots as shown in Figure 2-8a, the printhead is set too far from the platen. To correct this malfunction rotate the adjust lever toward the rear of the terminal.
5. If the printed characters are smeared as shown in Figure 2-8b, the printhead is set too close to the platen. To correct this, rotate the adjust lever toward the front of the terminal.
6. If the characters are clearly formed and not smeared as shown in Figure 2-8c, the printhead is satisfactorily adjusted.
7. Terminate the self-test by momentarily pressing the **RESET** pushbutton.



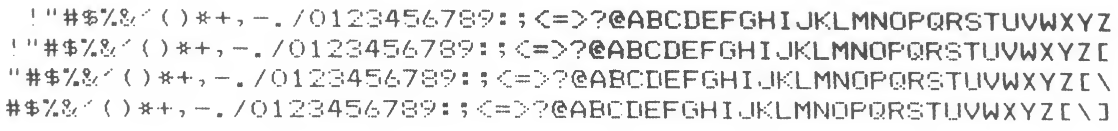
```
 !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[
"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\
#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]
```

a. Printhead too far from platen



```
 !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[
"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\
#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]
```

b. Printhead too close to platen



```
 !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[
"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\
#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]
```

c. Printhead adjusted correctly

2206552-10

Figure 2-8. Self-Test Results

2.8.2 Model 820/825 RO

1. Switch the **LINE/•/LCL** switch to **LCL**.
2. Initiate the self-test on the Model 820/825 RO by pressing the **TEST** and **1** keys in sequence.
3. Observe that a repetitive, ripple pattern (called a barberpole) is printed and that the TSD displays **|39**, flashing.
4. If the printed characters are partially formed or have missing dots as shown in Figure 2-8a, the printhead is set too far from the platen. To correct this malfunction rotate the adjust lever toward the rear of the terminal.
5. If the printed characters are smeared as shown in Figure 2-8b, the printhead is set too close to the platen. To correct this, rotate the adjust lever toward the front of the terminal.
6. If the characters are clearly formed and not smeared as shown in Figure 2-8c, the printhead is satisfactorily adjusted.
7. Terminate the self-test by momentarily pressing the **RESET** pushbutton.

Table 2-1. Self-Test Patterns of the Model 820 KSR and RO Terminals

Self-Test	KSR Key Sequence	RO Key Sequence	Results	Notes
Barberpole	**CTRL SHIFT 1** (simultaneously)	**TEST 1** (sequentially)	Barberpole pattern (Fig. 2-8)	Exercises 95%of terminal functions
Alternate Character Set Barberpole	Not available on basic KSR. On KSR with Alternate Char. Set--Shift to alternate set and initiate normal barberpole sequence.	Not available on standard RO. On RO with Alternate Character Set, depress **TEST 2** (sequentially)	Alternate character set barberpole	Exercises 95% of terminal functions. Gives display of Alternate installed character set. If **TEST 2** is depressed on an RO with no alternate character set, a standard barberpole pattern will be generated.
Run-In	**CTRL SHIFT 6** (simultaneously)	**TEST 6** (sequentially)	OKOKOK... (132 columns)	Exercises 95% of terminal functions. Heavily exercises printer mechanism and communications interface.
Communications Test	**CTRL SHIFT 2** (simultanously) followed by any printable character	Not available	*nnnnnnn*... (transmitted, where *n* is the character depressed last in the sequence)	Transmitted by the KSR only unless Code 82 is enabled, in which case it also receives at the configured baud rate. Used for adjusting transmit levels of modems. If 82 and a rate higher than 1200 baud is enabled, initiating the communications test will result in overflowing the receive buffer.

2.8.3 Model 820/825 KSR and RO Self-Test Procedures

The Model 820/825 KSR and RO terminals each have several other self-test diagnostic pattern generators in their operating systems. These include the alternate character set barberpole (RO only) pattern, the run-in test pattern, and the communications test pattern. Table 2-1 explains the **CTRL/SHIFT** or **TEST** key sequences necessary to generate these patterns, as well as their intended purposes and the appearance of their outputs.

2.9 CONFIGURATION PARAMETER SELECTION

All host system-dependent operating parameters such as communication mode, baud rate, and parity are entered from the operator panel. These operating parameters are designated by two-digit codes called ''configuration codes.'' The configuration codes are summarized in Table 2-2.

Table 2-2. Configuration Codes

CODE	MEANING	OPTION REQUIRED
	Predefined Configuration Selection (one only)	
01 to 08	Select corresponding predefined configuration set	YES
09	Select standard default configuration set	
	Communication Mode Selection (one only)	
11 a	Half duplex (for use with type 202 data set)	
12 a	Half duplex and reverse channel (for use with type 202 data set)	
13 b	Full duplex (for type 103, 113, 212 data sets)	
14	Full duplex and reverse channel ON for ready (for use as a console)	
15	Full duplex and reverse channel OFF tor ready (for use as a console)	
16	Select current-loop option (same as code 14 plus enabled interface)	
21	110 baud	
22	200 baud	
23	300 baud	
24	600 baud	
25 a	1200 baud	
26 a	2400 baud	
27 a	4800 baud	
28 a	9600 baud	
29 + a	300/1200 baud (for use with type 212 data set with speed-select option)	
	Parity Selection (one only)	
31	Odd parity, no parity check	
32 +	Even parity, no parity check	
33	Odd parity, indication on error	
34	Even parity, indication on error	
35	Odd parity, indication plus printed symbol on error	
36	Even parity, indication plus printed symbol on error	
37	Parity bit mark, no parity check	
38	Parity bit space, no parity check	
39	Parity bit selects alternate character set (RO only)	
	Line Control Parameters (no limit)	
60 a	Program line turnaround characters for half duplex (202)	
61 c	Enable fail-safe disconnect	
62 c	Disconnect on receipt of EOT	
63 c	Disconnect on receipt of DLE EOT	
64 d	Disconnect on paper-out or carriage jam	
65 c	Enable no-activity disconnect	
66 a	Enable no-LTA operation if any half-duplex mode is selected	
67 a	Enable transmission of CR and first LTA character on **RETURN** from the keyboard (KSR only)	

Table 2-2. Configuration Codes (Concluded)

CODE	MEANING	OPTION REQUIRED
	Transmission Control Parameters (no limit)	
70	Program answerback memory (ABM)	
71 d	Autotrigger ABM on connection	
72	Enable print of ABM contents (local **HERE IS** or code 82 set)	
	Terminal Control Parameters (no limit)	
80	Program **ENTER** key on numeric keypad	YES
81	Enable device and format control (escape sequence) from the communication line	YES
82	Enable local copy of transmitted data	
83	Transmit DC3 or BREAK on printer-busy; DC1 or LTA on READY	
84	Do "new line" on receipt of LF	
85	Do "new line" on receipt of CR	
86	Transmit CR LF when **RETURN** key is pressed (KSR only)	
87	Print all control characters	
88	Set compressed print (16.5 cpi)	
89	Set absolute right margin at column 80	YES
91	Set 8 lines-per-inch spacing	
92	Enable automatic perforation skip	
93	Set absolute line length to 8 inches	
96 a,e	Transmit DC3 on FAULT, DC1 on READY	
]]	Invalid configuration code has been entered	

NOTES:

a. Not available on the Model 825 Terminals
b. Standard default parameter configuration set
c. Valid only when parameter 11, 12, or 13 is enabled
d. For ROM sets 03B/04B, 05B/06B, or 07B/08B; valid only with parameter 11, 12, or 13 enabled
e. Not available with ROM sets 03B/04B, 05B/06B, 07B/08B

2.9.1 Configuration Set Selection (01-09)

A configuration set defines all operating parameters for a particular terminal application. The definition of the configuration set parameters is:

01-08 User-defined configuration sets are optional features of the terminal. The user may specify up to eight complete sets of configuration parameters which are identified by the codes 01-08. These sets are contained in the configuration PROM located in socket XU24 on the terminal electronics (main) printed wiring board (PWB).

09 The default configuration set has the following parameters enabled:

- 13 — Full duplex
- 23 — 300 baud, Model 825 only
- 29 — Auto-select baud rate (300/1200 baud), Model 820 only
- 32 — Even parity, no parity check

2.9.2 Communication Mode (11-16)

The communication (or duplex) mode determines the protocol used in exchanging data with the host system. Note that one (and only one) of parameters 11-16 must be enabled all times. The Model 820/825 permits only one of these parameters to be enabled at a time.

11 Model 820 only: Half duplex refers to the use of a communication channel as that provided by a Bell System 202 data set (or equivalent) which permits exchange of data in only one direction at a time. One to three line turnaround (LTA) characters may be configured for this communication mode. If this is not done and no-LTA operation is not selected (code 66), an audible tone sounds, and error code 10 is displayed on the terminal status display. The function of LTA characters is explained in paragraph 3.4.5.

12 Model 820 only: Half duplex with reverse channel is similar to half duplex, except a low-frequency secondary channel is used to provide circuit assurance from the receiving to the transmitting station.

13 Full duplex refers to the use of a communication channel such as that provided by a Bell System 212 data set (or equivalent) which permits simultaneous, bidirectional data exchange.

14 Full duplex with reverse channel ON for READY is used for console operation; i.e., for applications without a modem. The Model 820/825 Terminals switch the transmitted reverse channel (secondary request to send, circuit SCA) ON for READY and OFF for BUSY.

15 Full duplex with reverse channel OFF for READY is identical to parameter 14, except that operation of the reverse channel is inverted.

16 Current-loop option refers to the enabling of an optional 20 mA current-loop interface used to communicate with those systems having a TTY interface. The standard EIA serial connector exhibits the normal operating characteristics of parameter 14 whether or not the current-loop interface is in use; although if used, the current-loop option requires the insertion of a shorting plug into the EIA connector, thus preventing use of the connector. This parameter may be enabled whether or not the optional current-loop interface is installed.

2.9.3 Communication Rate

The communication (or baud) rate determines the maximum number of characters per second (cps) that can be transmitted or received by the Model 820/825. The communication rate applies to both transmitted and received data. Note that one (and only one) baud rate must be enabled at all times. The Model 820/825 KSR and RO Terminals permit only one of these parameters to be enabled at any one time.

21 110 baud is 10 cps (characters per second transmitted and/or received)

22 200 baud is 20 cps

23 300 baud is 30 cps

24 2600 baud is 60 cps

The following parameters (25 through 29) are available only on the Model 820 Terminals:

25 1200 baud is 120 cps

26 2400 baud is 240 cps

27 4800 baud is 480 cps

28 9600 baud is 960 cps

29 Auto-select is for use with Bell System 212 data sets (or equivalent) equipped with an automatic speed selection option. The Model 820 Terminals operate at either 300 or 1200 baud, depending on the status of pin 12 of the EIA interface when the call is connected; **OFF** selects 300 baud, and **ON** selects 1200 baud. Pin 12 may be called "received reverse channel, circuit SCF, secondary data carrier detect," or "secondary received line signal detector."

2.9.4 Parity (31-39)

The parity selection determines how the Model 820/825 processes the error bit of the transmitted and received data. Parity is always added to transmitted data. The parity of received data is either checked or ignored according to the selected parity parameter. If the parity of received data is checked, an error is noted in one of two ways. Note that one (and only one) parity parameter must be enabled at all times. Again, the Model 820/825 does not permit more than one parameter of this group to be enabled at any one time.

31 Transmit odd parity, do not check received data

32 Transmit even parity, do not check received data

33 Transmit odd parity, indication on error*

34 Transmit even parity, indication on error*

35 Transmit odd parity, indication plus printed symbol on error**

36 Transmit even parity, indication plus printed symbol on error**

37 Transmit mark parity, do not check received data

38 Transmit space parity, do not check received data

39 Transmit space parity, parity bit in received data selects alternate character set (if present). This code can be entered only on a Model 820/825 RO Terminal.

---

* Indication on error — the audible tone is sounded, and an error code is displayed.

** Indication plus printed symbol — the audible tone is sounded, an error code is displayed, and the /erroneous character is replaced with the parity error symbol.

2.9.5 Line Control (61-67)

The line control parameters provide several line disconnect options for use with modem communication modes. In all cases the Model 820/825 KSR or RO accomplishes the disconnect by switching off DTR until DSR has been off for 3 seconds. These automatic line disconnect features are usually enabled when the Model 820/825 is to be used in an unattended environment. On the Model 820 Terminals only, the line control parameters 66 and 67 implement alternate LTA functions for the half-duplex communication modes.

Note that any number of line control parameters may be enabled at any time.

61 Fail-safe disconnect, when enabled, causes the Model 820/825 KSR to disconnect from the transmission line when certain abnormal conditions occur. The audible tone sounds momentarily, and a fail-safe disconnect error code is displayed to the operator. The error display is reset the next time the DSR signal comes ON or the **RESET** pushbutton is actuated.

Fail-safe disconnect occurs under the following conditions according to the communication mode:

Full duplex

- No data carrier detect received within 22 seconds after DSR switched ON (wrong-number time-out).
- Carrier is OFF for 8 seconds after having been ON (loss of carrier time-out).

Half duplex, Model 820 Terminals only

- Carrier is OFF for 22 seconds after DSR comes on unless the ABM autotrigger feature is enabled.
- Carrier is OFF for 8 seconds after a line turnaround character is transmitted.
- Clear to send (CTS) fails to switch ON within 8 seconds after request to send (RTS) comes ON.

Half duplex with reverse channel, Model 820 Terminals only

- Carrier is OFF for 22 seconds after circuit DSR comes ON.
- Carrier is OFF for 8 seconds after a line turnaround character is transmitted.
- Carrier is OFF for 8 seconds after having been ON, unless carrier turnoff was preceded by a transmitted BREAK by the Model 820 KSR or receipt of a line turnaround character by Model 820 KSR or RO Terminal.
- CTS fails to come on within 8 seconds after RTS comes ON (CTS time-out).

In all cases, the fail-safe code is not displayed if DSR switches OFF before the specified time-out elapses, or if disconnect is preceded by receipt of the configured disconnect character (or character sequence).

62 Disconnect on receipt of EOT causes the Model 820/825 KSR or RO to perform a line disconnect when the control character EOT is received.

63 Disconnect on receipt of DLE EOT causes the Model 820/825 KSR or RO to perform a line disconnect when the control character sequence DLE EOT is received.

64 Disconnect on paper-out or carriage jam (when enabled) causes the Model 820/825 KSR or RO to perform a line disconnect when the terminal detects either fault condition. If parameter 64 is disabled, a BUSY signal is issued when either condition occurs. The BUSY signal depends upon the communication mode:

- Full duplex — timed break pulse (256-ms spacing signal) transmitted.
- Half duplex, Model 820 Terminals only — no response possible; request to send is held off following receipt of next line turnaround character.

- Half duplex with reverse channel, Model 820 Terminals only — reverse channel (secondary request to send, circuit SCA) is switched OFF.

Enabling or disabling of parameter 64 has no effect upon the BUSY signal provided on the reverse channel when operating in one of the console modes (parameters 14, 15, 16). With ROM sets 03B/04B, 05B/06B, or 07B/08B, parameter 64 is ignored if parameter 14, 15, or 16 is enabled.*

65 No-activity disconnect causes the Model 820/825 KSR or RO to disconnect upon three continuous minutes inactivity on both the transmitter and receiver. The transmission or receipt of any data during any active period causes the timer to be reset to three minutes. This disconnect is independent of parameter 61.

66 Model 820 Terminals only: No-line turnaround mode for half-duplex operation is selected by this parameter. It is functional only in conjunction with parameter 11 or 12, but may be selected regardless of the duplex mode selected. No-LTA operation is explained in detail in paragraph 3.4.5.

67 Model 820 KSR Terminals only: Transmission of carriage return and the first LTA character upon pressing **RETURN** key (KSR only) transmits both a carriage return (ASCII 0D) and the first configured LTA character if and only if code 11 or 12 is selected and code 66 is not.

NOTE

If parameter 86 is also enabled when parameter 67 is enabled for half duplex or half duplex with reverse channel mode with LTA characters, the sequence CR, LF, LTA is transmitted for each **RETURN** key activation. The code generated for **CTRL n** is not affected by this parameter.

2.9.6 Transmission Control (71-72)

The transmission control parameters provide automatic control of the answerback memory (ABM). Note that any number of the transmission control parameters may be enabled at any time.

71 Autotrigger ABM on connection causes the programmed ABM message to be transmitted at the following times according to the enabled modem communication mode:

- Full duplex — 1.28 seconds after both DSR and CTS switch ON. RTS is switched ON when DSR comes ON. CTS ordinarily switches ON simultaneously with the carrier. With ROM sets 03B/04B, 05B/06B, 07B/08B, parameter 71 is ignored if parameter 14, 15, or 16 is enabled.*

- Half duplex (Model 820 Terminals only) — similar to full duplex except that the carrier is tested when DSR comes on. If the carrier is OFF for 220 ms, indicating that no carrier is being received, RTS is switched ON and the

---

*Refer to "ROM Identification Report," paragraph 5.4.5, Section 5.

ABM message is transmitted 1.28 seconds after CTS comes ON. If the carrier is ON within 220 ms after DSR comes ON, the Model 820 remains in receive mode until the first line turnaround. The ABM message is then transmitted at the same 1.28-second delay after CTS switches ON.

- Half duplex with reverse channel (Model 820 Terminals only) — identical to half duplex except that reverse channel must be received before the ABM message is transmitted.

NOTE

In both half duplex and half duplex with reverse channel (Model 820 only), the ABM should be programmed to include a line turnaround character as the last character of the message if it is intended that the Model 820 is to revert automatically to receive mode after the ABM is transmitted. If parameter 66 also is selected, the Model 820 automatically returns to an idle mode upon completion of the ABM transmission.

72 Enable print of ABM causes the contents of the ABM to be printed when the ABM message is transmitted and local copy is enabled, when the **HERE IS** key is actuated and the terminal is offline, or as a part of a local configuration report.

2.9.7 Terminal Control (81-89, 91-93)

The terminal control parameters enable use of certain special features of the Model 820/825. Note that any number of the terminal control parameters may be enabled at any time.

81 Enable device and format control from the communication line allows the acceptance of format commands from a host unit. Sequences of this type consist of the character ESC plus a series of characters in the form described in paragraph 3.5.1.

NOTE

This parameter can be enabled only if the device/forms control option is installed in the terminal.

82 Enable local copy of transmitted data causes all transmitted characters, except ENQ and ESC, to be copied to the Model 820/825. Local copy may be enabled for any communication mode.

83 Transmit DC3 or BREAK on printer BUSY and DC1 or LTA when READY, when enabled, causes transmission of a BUSY signal when the receive buffer is within 256 characters (Model 820; 32 characters for Model 825) of being full and a transmission of a READY signal when the receive buffer contains less than 256 characters (Model 825; 32 characters for Model 825). The BUSY/READY response is determined by the communication mode as follows:

- Full duplex, console and current loop (13-16): (a) BUSY — DC3 transmitted (b) READY — DC1 transmitted
- Half duplex (11) (Model 820 Terminals only) — No response possible
- Half duplex with reverse channel (12) (Model 820 Terminals only) — Reverse channel OFF at busy;

if the carrier is still being received and no line turnaround character has been received at READY, reverse channel is switched ON and operation continues. If the carrier has switched OFF before READY, RTS is switched ON; at READY or when reverse channel comes ON (whichever comes later), the first programmed line turnaround is transmitted, and RTS is switched OFF.

The status of configuration parameter 83 has no effect on the READY/BUSY signal provided on the reverse channel in the transmission modes selected by parameters 14, 15, and 16. Similarly, parameters 14, 15, and 16 have no effect on the operation of parameter 83.

84 Do new line on receipt of LF causes the terminal to respond to the receipt of the LF character by performing a carriage return and a line feed.

85 Do new line on receipt of CR causes the terminal to respond to the receipt of the CR character by performing a carriage return and a line feed.

86 KSR Terminals only: Transmit CR LF when **RETURN** is entered causes the terminal to transmit the CR and LF character sequence when CR is transmitted.

NOTE

Simultaneous enabling of parameter 84 or parameter 85 with parameter 86 causes double line feeds on data transmitted with local copy enabled. Also, see parameter 67 for combinations with that parameter.

87 Print all control characters causes all control characters to be printed (using the character font shown in Appendix A) to enable analysis of incoming data streams. The control functions normally associated with these characters, including printer control functions, are not performed.

88 Set compressed print only provides a means of locking the printer in compressed print mode to prevent inadvertent changes of horizontal pitch which could result in printing beyond the right edge of the form.

NOTE

The optional compressed print feature must be installed to use this parameter. Use of the compressed print parameter without the option is not permitted by the Model 820/825 Terminals.

89 Set absolute right margin at column 80 prevents inadvertent printing beyond the right edge of the form when the Model 820/825 KSR or RO is used in a network of 80-column format terminals.

91 Set 8 lines-per-inch spacing locks the spacing between lines of print in the Model 820/825 KSR and RO Terminals to 8 lines per inch.

92 Enable automatic perforation skip provides three-line spacing around the perforation section of forms by setting the top margin of each form at line three and the bottom margin one line above the bottom of the form.

93 Set absolute line length at 8 inches provides 80-column, 10-cpi printing and 132-column, 16.5-cpi printing.

96 Model 820 Terminals only: Transmit DC3 on FAULT, DC1 on READY provides notification of a paper-out or carriage jam condition to a host system which does not recognize a BREAK signal. DC1 is transmitted when the fault condition is cleared and the **RESET** pushbutton is pressed. Parameter 96 is not implemented in ROM sets 03B/04B, 05B/06B, and 07B/08B.

2.9.8 Programmable Parameters (ABM, LTA, ENTER)

In addition to the previously described operating parameters, the Model 820/825 KSR offers three programmable parameters — the answerback memory (ABM), the line turnaround characters (LTA) (Model 820 Terminals only), and the **ENTER** key (if the optional numeric keypad is installed). All three parameters may be programmed from the keyboard as required. The RO terminals offer only the ABM and LTA (Model 820 RO only) programmable features. They may be programmed from the operator control panel as required.

- Answerback memory — The ABM is a unique terminal identifier which may be programmed from one to 21 characters long. Any combination of the 128 ASCII characters may be programmed in the ABM message.

- Line turnaround characters (Model 820 Terminals only) — The LTA characters provide control of the communication line when either half duplex (parameter 11) or half duplex with reverse channel (parameter 12) is used. At least one and no more than three of the 128 ASCII characters must be programmed when either of the half-duplex communication modes are selected and no-LTA operation is not selected.

- **ENTER** Key (KSR only) — The **ENTER** key on the optional numeric keypad may be programmed to generate a one-, two-, or three-character sequence when the **ENTER** key is pressed. Any combination of the 128 ASCII characters may be used.

2.9.9 Configuration Report

A printed configuration report may be obtained from the Model 820/825 Terminals as described in the following paragraphs:

2.9.9.1 Local Mode or Standby Mode (KSR).

1. Ensure that the **LINE/•/LCL** switch is not in the **LINE** position and that the configure/operate switch is in the operate position.

2. Initiate the configuration report by pressing and holding the **CTRL** and **SHIFT** keys and then momentarily pressing the **3** key; then release all keys.

3. Observe that a report of the form:

   nn;nn;...nnT

   is printed. The terms nn correspond to the two-digit configuration codes which are currently active; i.e. , the enabled parameters. The term T corresponds to the programmed line turnaround characters. If parameter 72 is enabled, the programmed ABM message is included in the configuration report (on the next line).

NOTE

The codes 60, 70, and 80 are never reported, and the **ENTER** key contents are not included in this report.

2.9.9.2 Local Mode or Standby Mode (RO).

1. Ensure that the **LINE/•/LCL** switch is not in the **LINE** position and that the terminal is not in configure mode. If the terminal is in configure mode, a [*XX* appears in the terminal status display, where *XX* refers to one of the enabled configuration parameters. Press the **OPER** key on the operator keypad to return the Model 820/825 to operate mode. The line or column number (depending on the existence and status of optional DFC operating parameters) is now displayed.

2. Press the **TEST** key and the **3** key in sequence. This initiates the printing of the configuration report.

3. Observe that a report of the form:

   nn;nn;...nnT

   is printed. The terms nn correspond to the two-digit configuration codes which are currently active; i.e., the enabled parameters. The term T corresponds to the programmed line turnaround characters. If parameter 72 is enabled, the programmed ABM message is included in the configuration report (on the next line).

NOTE

The codes 60, 70, and 80 are never reported.

2.9.9.3 LINE Mode (DFC option only) KSR and RO. It is possible to determine the configuration parameters of a Model 820/825 KSR or RO in an online, active condition if and only if it is equipped with the DFC option. A configuration report may be transmitted to the host system in the following manner:

1. Establish communications with the Model 820/825 KSR or RO. This entails knowing at least the duplex mode, baud rate, and parity configurations of the terminal.

2. Transmit the following sequence to the Model 820/825 KSR or RO:

   ESC [c

3. The Model 820 KSR or RO answers (as soon as it attains control of the line, in half-duplex mode) the following sequence:

   ESC [820;nn;nn;nn;...nncT

   The Model 825 KSR or RO answers with the following sequence:

   ESC [825;nn;nn;nn;...nn

   where the terms nn correspond to the two-digit configuration codes which are currently active; i.e., the enabled parameters. The term T (Model 820 Terminals only) corresponds to the first programmed line turnaround character.

NOTE

The codes 60, 70, and 80 are never reported and the full LTA, ABM, and **ENTER** key contents (if KSR) are not included in this report.

2.10 CONFIGURATION PARAMETER ENTRY

The selected configuration parameters are entered via the keyboard of the Model 820/825 KSR or the operator keypad of the Model 820/825 RO. This procedure, called "configuring the terminal," is outlined in the following paragraphs in the recommended sequence.

2.10.1 Initiate Configuration

To initiate configuration, proceed as follows:

1. Set the **LINE/•/LCL** switch to the **LCL** position (lower edge pressed).

2. On a KSR terminal, lift the terminal cover and set the configure/operate switch to the configure position (toward the front of the terminal). On a RO terminal, lift the operator keypad cover and press the **CNFG** key.

3. Close the terminal cover (KSR).

4. Observe the terminal status display: the left digit is the symbol [, indicating that the terminal is in the configure mode; the center and right digits represent the configuration code corresponding to the first enabled configuration parameter.

2.10.2 Review Current Configuration

The current configuration (i.e., all enabled parameters) can be reviewed by using the **TAB** key. Each time the **TAB** key is pressed and released, the Model 820/825 KSR or RO displays the next enabled configuration parameter (the next parameter is the one with the next higher configuration code or the lowest configuration code if none higher are enabled). Use of the **TAB** key in no way affects the current configuration.

2.10.3 Enable Mutually Exclusive Parameters

Mutually exclusive parameters are those which must be specified. The mutually exclusive parameters are:

	Model 820 codes
• Communications modes	11-16
• Communication rates	21-29
• Parity	31-38 (39 — RO only)

	Model 825 codes
• Communication modes	13-16
• Communication rates	21-24
• Parity	31-38 (39 — RO only)

To enable a new mutually exclusive parameter, proceed as follows:

1. Type the two-digit code corresponding to the parameter to be enabled (see Table 2-1 for a list of configuration parameter codes, or refer to the Operator Reference Cards).
2. Momentarily press the **RETURN** key (the **CR** key on the RO terminal).
3. Listen for a short audible tone and ascertain that the code for the new parameter is displayed, signifying that the old parameter has been replaced with the new.

2.10.4 Enable ON/OFF Parameters

The ON/OFF parameters are those which modify the operation of the terminal and are not required. Any number of the ON/OFF parameters may be enabled (or switched ON). The ON/OFF parameters are:

- The line control options, codes 61-67 (Model 820) or codes 61-65 (Model 825)
- The transmission control (ABM) options, codes 71 and 72
- The terminal control options, codes 81-89, and codes 91-93.

To enable a new ON/OFF parameter proceed as follows:

1. Type the two-digit code corresponding to the parameter to be enabled.
2. Momentarily press the **RETURN** key (the **CR** key on the RO terminal).
3. Listen for a short audible tone and ascertain that the code for the new parameter is displayed, signifying that the new parameter is enabled. Note that no other parameter is affected.

2.10.5 Disable ON/OFF Parameters

Any ON/OFF parameter currently enabled may be disabled (or switched OFF). To disable an ON/OFF parameter proceed as follows:

1. Type the two-digit code corresponding to the parameter to be disabled or press the **TAB** key until the code is displayed.
2. Momentarily press the **DEL** key.
3. Listen for a short audible tone and ascertain that the code for the next enabled parameter is displayed, signifying that the old parameter is disabled.

2.10.6 Program the ABM, LTA, and ENTER Key

The programmable parameters are entered from the keyboard/keypad while in the configure mode. To program the LTA, ABM, and **ENTER** key, proceed as follows:

1. Type the code corresponding to the programmable characters as follows:

   60 — line turnaround (LTA) characters (Model 820 Terminals only)

    70 — answerback memory (ABM)

    80 — **ENTER** key (optional numeric keypad must be installed, KSR only)

2. Momentarily press the **RETURN** key (the **CR** key on the RO terminal).

3. Observe that the left digit of the TSD displays U, signifying that the terminal is in the programming mode, and that the other two digits display 0l, signifying that the first character of the programming sequence may now be entered.

4. *KSR*: Type any of the 128 ASCII characters. *RO*: Input the hexadecimal code for any of the 128 ASCII characters. This is a two digit code found in the Operator Reference Cards. For each entry the count in the middle and right digits increments by one, signifying that the entry has been accepted. The maximum number of characters which may be entered is three for the LTA (Model 820 only), 21 for the ABM, and three for the **ENTER** key. (KSR only)

5. Terminate the programming sequence by (1) entering the maximum number of characters or (2) pressing the **HERE IS** key on KSR terminals or the **END** key on RO terminals.

6. Listen for a short audible tone and ascertain that the left digit displays [, and the other two digits display the code for the next enabled parameter, signifying that the programming sequence has been successfully completed.

NOTE

The key sequence 60 (or 70 or 80), **RETURN, HERE IS** (60 or 70 **CR END** for RO) may be used to erase the corresponding programmable parameter.

2.10.7 Configuration Errors

Typing errors may be made during the configuration process. If an invalid code is entered via the keyboard, the terminal emits a long audible tone and displays the code []]. To recover from this condition, type the correct code (or press the **TAB** key) and continue the configuration procedure. Note that no parameters are changed when a configuration error occurs.

2.10.8 Terminate Configuration

Before terminating the configuration mode, it is advisable to review the current configuration by pressing the **TAB** key to verify that the correct parameters are enabled. To terminate the configuration mode proceed as follows:

1. Lift the terminal cover (KSR only).

2. Set the configure/operate switch in the operate position (toward the rear of the terminal) on the Model 820 KSR, or depress the **OPER** key on the RO terminal operator keypad.

3. Close the cover (KSR) or the operator keypad cover (RO).

4. Observe that the TSD displays the column number signifying that the terminal has calculated a checksum for the current configuration parameters and has stored the parameters and checksum in nonvolatile memory.

2.11 COMMUNICATIONS INTERFACE CABLE CONNECTION

Available as an accessory for the Model 820/825 Terminals is a 1.8 m (6 ft) communication interface cable (TI Part No. 2207634-0001 for Model 820, 993205-0001 for Model 825) suitable for direct connection to Bell System type 103, 113, 202*, and 212* data sets. To install the cable between the terminal and the data set, simply plug the cable into the appropriate receptacles and tighten the mounting screws. Other cable options are available for use with the Model 820/825 Terminals; refer to Appendix G for communication interface cabling information.

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*Model 820 Terminals only

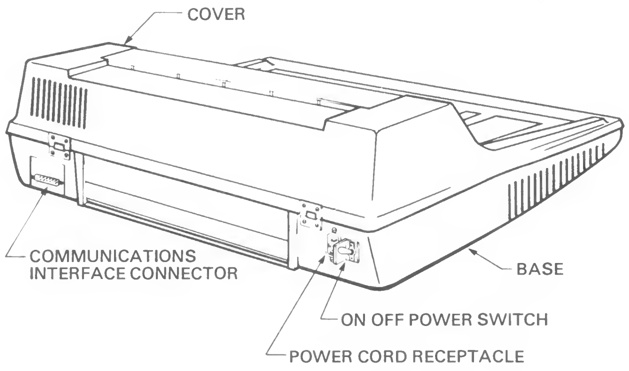
Section 3

Operation

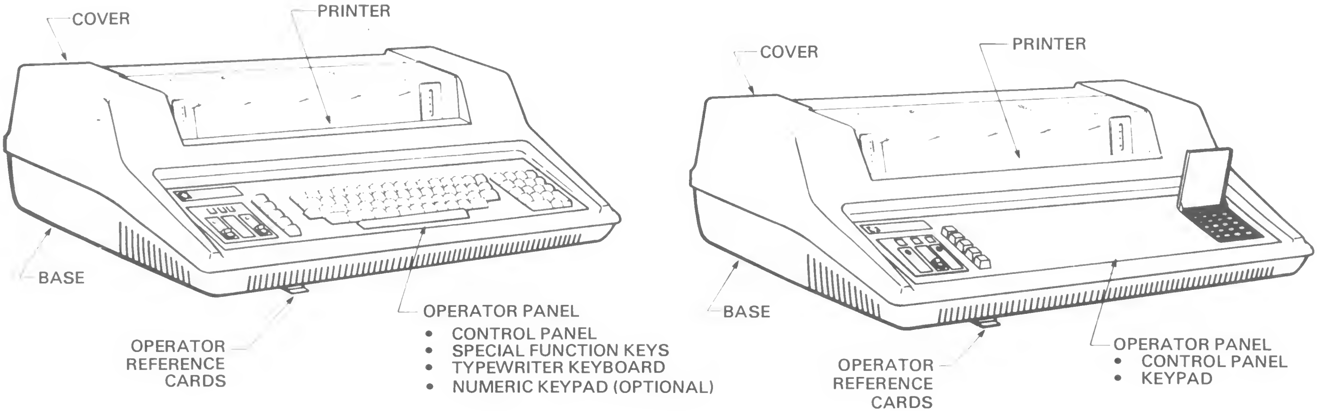
3.1 INTRODUCTION

This section provides a functional description of the Model 820/825 Terminals, including the use of all controls and indicators. Figure 3-1 shows the location of the major functional components of the terminals including the operator panel, the printer, the communication interface, and the operator reference cards.

Operation of the various terminal options is also discussed in this section.



(a) Rear View



(b) KSR Data Terminal

(c) RO Data Terminal

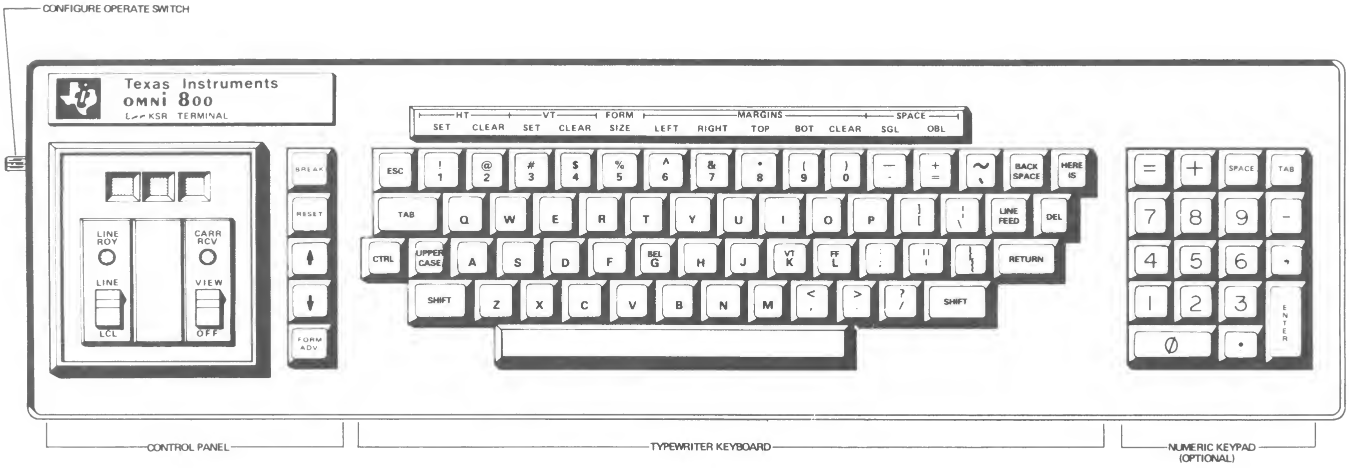
2206552-11

Figure 3-1. Model 820/825 KSR and RO Major Functional Components

3.2 OPERATOR PANEL

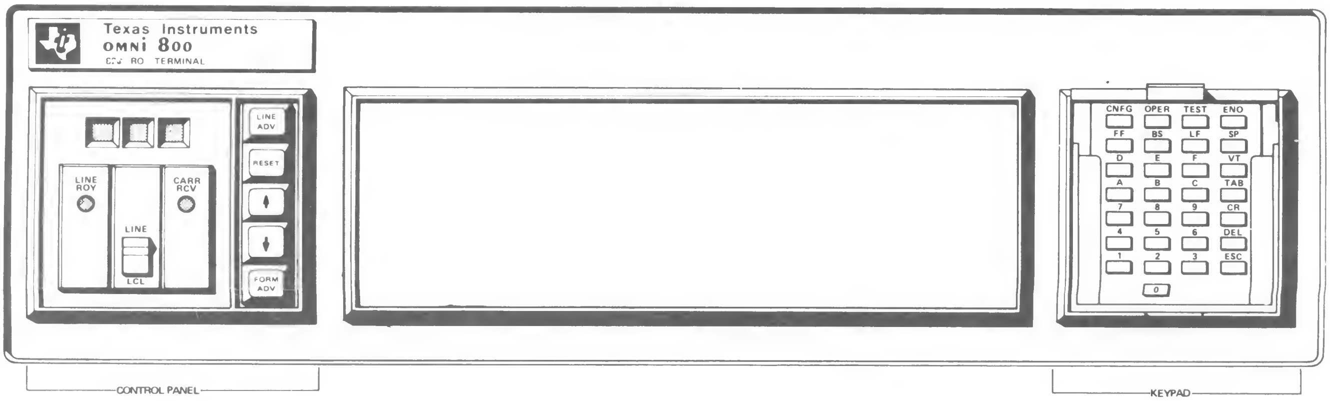
The operator panel of the Model 820/825 KSR, shown in Figure 3-2, may be considered as four sections: the control panel, the typewriter-like keyboard, the optional numeric keypad, and the configure/operate switch.

The operator panel of the Model 820/825 RO, shown in Figure 3-3, may be considered as two sections: the control panel and the operator keypad. The operation of each section on the operator panel of the terminals is described in the following paragraphs.



2206552-12

Figure 3-2. Operator Panel, Model 820/825 KSR



2206552-13

Figure 3-3. Operator Panel, Model 820/825 RO

3.2.1 Control Panel

The control panel provides various switches to permit the operator to control the communication interface and the operation of the printer. Various indicators provide operating status information to the operator.

3.2.1.1 LINE/•/LCL Switch. This three-position rocker switch controls the communication interface as follows:

LINE	When the switch is set to **LINE**, the terminal is in the line mode (or online), and data may be interchanged with other devices in the system. Data received from the host system via the communication interface is printed, and data entered on the Model 820/825 KSR keyboard is transmitted to the host system via the communication interface. Answerback memory (ABM) messages and status reports from the Model 820/825 KSR and RO terminals are transmitted only in this mode.
•(standby)	When the switch is in the center position, the terminal is in the standby mode and no data may be interchanged with the host system. Data received from the host system via the communication interface is ignored. Data entered on the Model 820/825 KSR keyboard or RO operator keypad is printed but not transmitted. When in the standby mode, the Model 820 maintains connection to the host system (similar to a telephone on "hold") if a connection has already been established.
LCL(local)	When the switch is set to **LCL**, the terminal is in the local mode, and no data may be interchanged with the host system. Operation in the local mode is identical to the standby mode, except that connection to the host system is not maintained.

3.2.1.2 VIEW/OFF Switch (Model 820/825 KSR only). This two-position rocker switch controls the last-character-visible feature of the Model 820/825 KSR. When set to the **VIEW** position, the printhead moves to the right to make visible the last character printed. A pointer on the left side of the printhead indicates the position where the next character is printed. While the switch is in the **VIEW** position, the receipt of any printable character causes the printhead to return to its previous position to print that character. After the character is printed, the printhead again moves to the right if no more characters are received within 1 second.

When the switch is placed in the **OFF** position, the printhead returns to its previous position to print the next character and does not move to the right to permit visibility of the last character.

NOTE

(a) The pointer affixed to the printhead is accurate only when the printhead has moved to the right to allow last character visibility.

(b) The Model 820/825 RO Terminal has an automatic view function to provide last character visibility. It has no **VIEW/OFF** switch, but performs normally as does the Model 820/825 KSR with the switch in the **VIEW** position.

3.2.1.3 LINE RDY and CARR RCV Indicators. These two light-emitting-diode (LED) indicators provide operating status information for the communication interface. The **LINE RDY** (line ready) indicator shows the status of the data set ready (DSR) interface signal and the transmit circuit; the **CARR RCV** (carrier received) indicator shows the status of the data carrier detect (DCD) interface signal. Table 3-1 defines the operation of these two indicators.

Table 3-1. LINE RDY and CARR RCV Indicators

COMMUNICATION MODE	CARR RCV INDICATOR		LINE RDY INDICATOR		
	ON	OFF	FLASHING	ON	OFF
Half Duplex (Model 820 only)	Ready to Receive	Receive not ready; transmit available	In standby or transmit requested but not ready	Comm line ready	Comm line not ready
Full Duplex		Receive not ready; no carrier	In standby or data set failure		

3.2.1.4 Terminal Status Display (TSD). The three-digit numeric display provides several operating indications, including next character position, current line number, status, and configuration and programming modes. Table 3-2 summarizes the TSD functions.

Next character position — The TSD normally displays the next character position; that is, if a character was just printed in column 67, the TSD displays **068**. When indicating the next character position, the display always shows a number between 001 and 133 (001 and 219 for machines equipped with the compressed print option).

Current line number — If the device/forms control option is installed in your Model 820/825, the TSD can be converted from a next-character-position indicator to a current-line-number indicator. When used as a current-line-number indicator, the left digit of the TSD is blank and the other two digits contain the line number, if less than 100. Since it is possible to have line numbers greater than 100 (with the 8-lpi configuration), the line numbers 100-112 appear in the TSD, identical to column numbers.

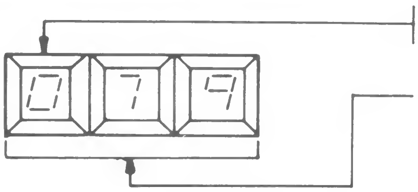
Status — The TSD functions as a status indicator when an error condition or a special operating condition exists. When operating as a status indicator, the TSD flashes on and off, the left digit contains the symbol], and the other two digits display one of the status codes listed in Table 3-3.

The status codes are prioritized in ascending numeric order; that is, code 00 is assigned the highest priority, and 39 is assigned the lowest. When multiple status codes are active, the highest priority code (i.e., the lowest number) is displayed until it is cleared by pressing **RESET**; then the next highest code is displayed.

Configuration and programming modes — Use of the TSD, in conjunction with the configuration and programming modes, is explained in subsection 2.10. In summary, a **[** displayed in the left digit indicates the configuration mode, and a **U** displayed in the left digit indicates the programming mode.

Table 3-2. Interpreting Terminal Status Display (TSD) Functions

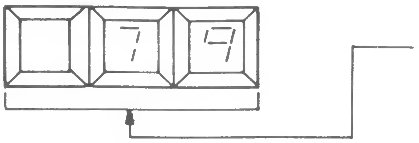
a. Print Column/Current Line Indicator



0 or 1 — indicates the next print position (a 1 may indicate the current line number — DFC option only)

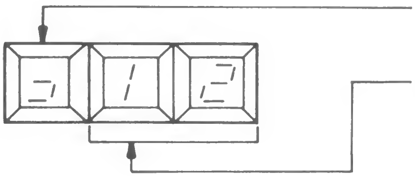
The next position to be printed or the current line number

or



The current line number (requires DFC option)

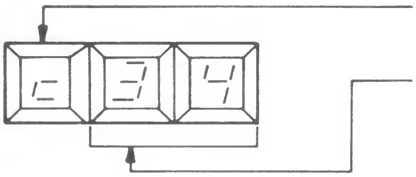
b. Status (Display Flashing)



Indicates that error or special mode condition exists

Status code

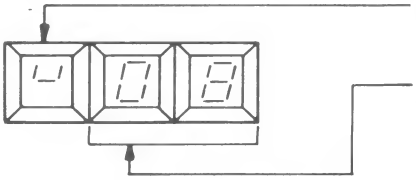
c. Configure Mode



Indicates the terminal is in CONFIGURE mode

Configuration code

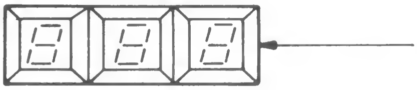
d. Program Answer-Back Memory (ABM), Line Turnaround (LTA)* Character(s), or ENTER Key Sequence (ENTER key present only on KSR models w/optional numeric pad.)



Indicates the terminal is in CONFIGURE mode, and programming of the ABM, LTA* or ENTER key sequence is in progress

Indicates the next character position to be programmed (21 max. for ABM; 3 max for LTA* or ENTER)

e. Indicator Test



Automatic power-up test is in progress

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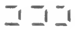
*Model 820 Terminals only

Table 3-3. Status Codes

TYPE	CODE	DEFINITION	ACTION REQUIRED
I		Memory Failure	
	00	RAM memory	Equipment problem: Cycle power. If condition repeats, call for service.
	01	ROM memory I	
	02	ROM memory II	
	03	Nonvolatile memory	
II		Operator Correctable	
	10[a]	Leaving configure mode with half-duplex set, but no LTA specified	Go to CONFIGURE mode and specify LTA character or set full-duplex operation.
	11	Carriage jam	Clear jam and reset
	12	Paper-out	Load paper and reset
III		Abnormal Communications	
	20	Clear-to-send timeout	Reset[b]
	21	Loss-of-carrier timeout	Reset[b]
	22	Wrong number timeout	Reset[b]
	23	Receive Buffer overflow	Reset[c]
	24	Parity error	Reset/Change Parity[c]
	25	Transmit buffer overflow	Reset[c]
	26	No activity timeout	Reset[b]
	29[d]	Invalid EXC sequence from communications line	see note c below
IV		Special Operating Mode	
	30	Keyboard locked	From line or reset
	31	Printer off	From line or reset
	39	Test in progress	Reset
V		Operator Error	
		Invalid ESC sequence from keyboard	Reset and type valid command sequence

NOTES

a. Modei 820 Terminals only.

b. Automatically reset when data-set-ready comes on (repetition could indicate data set failure); associated with failsafe disconnect parameter. (Except code 26).

c. Automatically reset when status report transmitted per request from line: See DFC Option.

d. This code is not displayed, but it is transmitted as part of the status report: See DFC Option.

3.2.1.5 Special Function Keys. The five momentary pushbuttons located on the control panel provide additional control of the printer and the communication interface.

RESET — The **RESET** pushbutton enables the operator to acknowledge and clear errors detected by the terminal and to return the terminal to normal operation after a self-test has been initiated (see Section 5 of this manual for self-test instructions).

↓ and ↑ — These pushbuttons permit the operator to make fine adjustments to the vertical paper registration. The ↓ key advances the paper in 0.5 mm (1/48 in) steps; the ↑ key performs the reverse function.

FORM ADV — This pushbutton permits the operator to advance the paper without generating or receiving a printer control code. If **FORM ADV** is pressed and released, the paper advances one line and the printhead remains in its present position. If **FORM ADV** is pressed and held (for longer than 0.25 second), the paper advances to the top of the next form and the printhead performs a carriage return.

BREAK (KSR terminals only) — The **BREAK** pushbutton enables the operator to signal the host system that an abnormal condition exists. When the **BREAK** key is pressed, the terminal generates a BREAK signal for 256 ms or until the key is released, whichever is longer. When the terminal is transmitting, the BREAK signal is a SPACE condition on the transmitted data line; when the terminal (Model 820 KSR only) is configured for half duplex with reverse channel (parameter 12) and is receiving, the BREAK signal is the switching of the reverse channel to the **OFF** condition.

LINE ADV (RO only) — The **LINE ADV** pushbutton performs the same function as a momentary activation of the **FORM ADV** pushbutton on the KSR or the RO; i.e., it advances the paper by one line at the configured line spacing conditions.

3.2.2 Keyboard (KSR Only)

The keyboard is capable of generating all 128 ASCII characters defined in Appendix B of this manual. The keyboard features n-key rollover interlocking to prevent erroneous code generation when two or more keys are pressed simultaneously. All keys on the keyboard except **SHIFT, UPPER CASE, CTRL,** and **HERE IS** generate a single-character code when pressed. Depending on the configuration of the terminal, the **RETURN** key may generate more than one character code per activation.

3.2.2.1 Code-Generating Keys. All code-generating keys, except **ESC, TAB, DEL,** and **RETURN,** feature automatic-character-repeat operation; that is, when a key is pressed for longer than 0.6 seconds, the associated character is generated at a 10 character-per-second rate until the key is released.

The code generated for a particular key depends on the position of the four qualifier keys: **SHIFT** (two keys), **UPPER CASE,** and **CTRL,** as follows:

SHIFT — When this key is pressed and held while another key is pressed, uppercase alphabet characters A-Z are generated, and the top function marked on two-function keys is generated (e.g., **SHIFT** and **!/1** generates **!**).

UPPER CASE — When this alternate action key is locked down, uppercase alphabet characters A-Z are generated. This key affects only the alphabet keys.

CTRL — When this key is pressed in conjunction with another key, ASCII control characters are generated. Appendix B illustrates the control characters generated by each key.

3.2.2.2 HERE IS Key. When pressed, the **HERE IS** key causes the Model 820/825 KSR to transmit the answerback memory (ABM) message if the ABM is programmed; **HERE IS** is ignored if the ABM is not programmed. Note that if the **LINE/•/LCL** switch is in the **LCL** position and parameter 72 is enabled, the ABM is printed. Control characters in the ABM are printed in the font shown in Appendix A.

3.2.2.3 Numeric Keypad Option. The numeric keypad option provides an additional 18-key cluster for use in high-volume number entry applications. The user-programmable **ENTER** key can generate a one-, two-, or three-character sequence when pressed (see paragraph 2.10.6).

3.2.3 Operator Keypad (Model 820/825 RO Only)

The operator keypad is capable of generating the ASCII codes for hexadecimal 0-9 and A-F, plus the ASCII control character codes FF, BS, LF, SP, VT, HT (TAB), CR, DEL, and ESC. Keys are print-generating only in Local or Standby mode. If parameter 87 is enabled, the fonts shown in Figure A-2 of Appendix A are produced for the control characters. The keystroke codes generated from the operator keypad cannot be transmitted. The process of programming the ABM message and LTA characters (Model 820 only) is explained in subsection 2.10.

In addition to the code-generating keys, four keys on the operator keypad can be used for configuring and testing the Model 820/825 RO, yet do not generate ASCII codes:

CNFG	The configure key causes the terminal to enter the configure mode if the machine is in the LCL mode. The machine shows a [in the leftmost digit of the TSD and accepts keystrokes from the keypad as configuration data. See subsection 2.10 for instructions on configuring the terminal.
OPER	The **OPER**ate key causes the machine to leave configure mode and return to its normal operating state.
TEST	The **TEST** key is used to initiate several maintenance tests and reports from the LCL mode. A description of these tests is given in subsection 5.4 of this manual.
END	The **END** key is used to program LTA characters (Model 820 only) and ABM messages, much the same way as the **HERE IS** key on the KSR keyboard. This keystroke ends the LTA or ABM programming process when pressed.

NOTE

Since starting and ending the configuration sequence is controlled from the operator keypad, there is no need for a configure/operate key on the Model 820/825 RO. Thus, the following section pertains to the Model 820/825 KSR only.

3.2.4 Configure/Operate Switch (KSR Terminals Only)

This two-position slide switch is located on the left side of the operator panel under the terminal cover. When in the configure position, the terminal operating parameters may be changed; when in the operate position, the terminal functions normally. The operate position of this switch is shown in Figure 3-4.

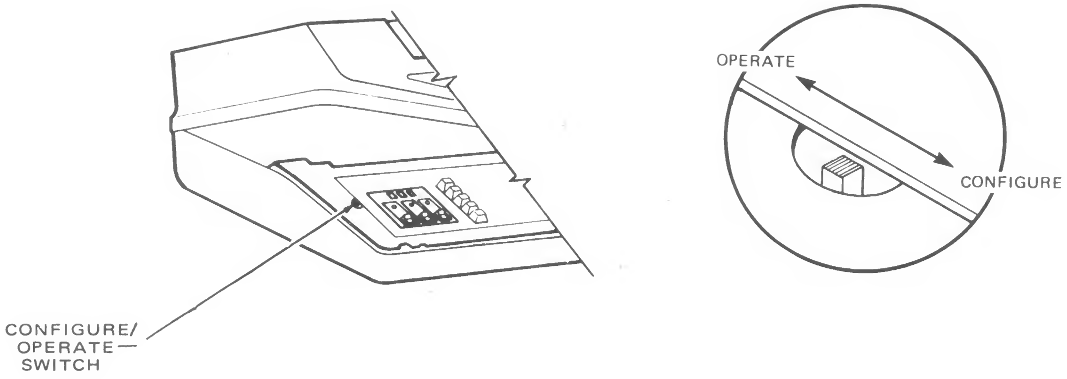


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Figure 3-4. Configure/Operate Switch

NOTE

Before the configure/operate switch is set to the configure position, the **LINE/•/LCL** switch must be set to the **LCL** position. If this condition is violated, the terminal pulses the audible tone on and off until the above settings are made.

3.2.5 Audible Tone

The Model 820/825 Terminals contain an audible tone generator which produces a 3200 Hz (±500 Hz) signal at a sound pressure of 55 dB (±10 dB) measured approximately 610 mm (2.0 ft) directly in front of the terminal. The operation of the audible tone is summarized in Table 3-4.

Table 3-4. Audible Tone Operation

SIGNAL	EXPLANATION
Short Tone (80 milliseconds)	1. 8 character positions from right margin when typing OR 2. ASCII BEL character has been received OR 3. A configuration command has been accepted OR 4. Power-up test has been completed successfully
Repeated Short Tones	Invalid attempt to initiate or terminate CONFIGURE mode operation
Long Tone (1 second)	A new status code has been activated or an invalid configuration parameter entered.

3.3 PRINTER

The printer is a serial, wire-matrix, impact mechanism which prints on conventional continuous-forms paper. The printing speed of the Model 820 Terminals is a nominal 150 characters per second; the printing speed of the Model 825 Terminals is a nominal 75 characters per second.

3.3.1 Character Set and Font

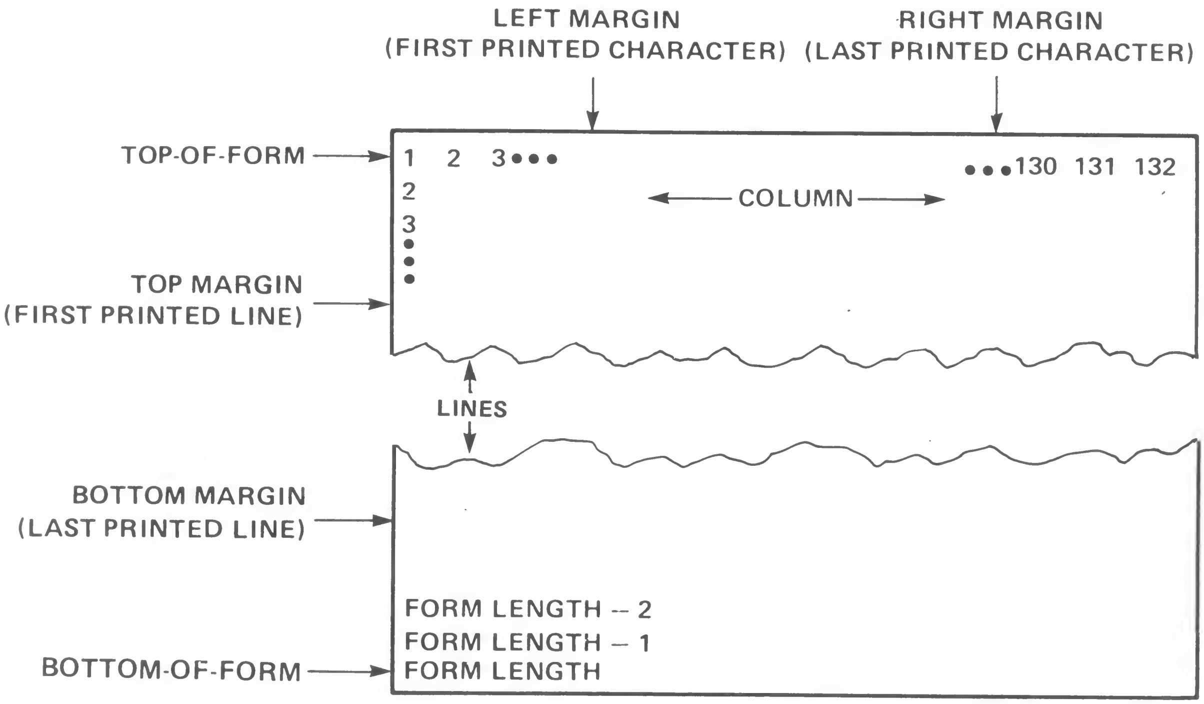
The 94 graphic symbols defined by ASCII, plus a unique parity error symbol, are printed in a nine-wide by seven-high matrix font as shown in Appendix A. When the 33 control characters are to be printed rather than acted upon (i.e., parameter 87 enabled), they are printed in the control symbol font shown in Appendix A.

3.3.2 Format Parameters

To facilitate setting up the KSR terminals as a forms printer, the following format parameters are defined:

Format	Definition
Form length	The number of lines on a page
Top-of-form	The first line on a page
Bottom-of-form	The last line on a page
Top margin	The first line which can be printed on a page
Bottom margin	The last line which can be printed on a page
Left margin	The first print position on a line
Right margin	The last print position on a line

These format parameters are illustrated in Figure 3-5.



TOP OF FORM = LINE 1

$1 \leq$ FORM LENGTH $\leq$ 84 at 6 LPI or 112 at 8 LPI

$1 \leq$ TOP MARGIN $\leq$ BOTTOM MARGIN $\leq$ FORM LENGTH

$1 \leq$ LEFT MARGIN $\leq$ RIGHT MARGIN $\leq$ 132 at 10 CPI or 218 at 16.5 CPI

Figure 3-5. Format Parameters

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3.3.3 End-of-Line Alarm

The audible tone sounds momentarily when the printhead reaches the eighth print position before the right margin. The tone functions only on keyboard- or keypad-entered data and is silenced on received data.

3.3.4 Printer Operation

The printer is controlled by the data received either from the communications interface or from the keyboard/keypad. Two types of data may be received: printable characters and control characters.

3.3.4.1 Printable Characters. The receipt of printable characters causes those characters to be printed in the sequence received. Up to 132 characters can be printed on a single line (218 characters if the terminal is equipped and configured to use the compressed-print option).

3.3.4.2 Automatic New Line. After a character is printed in the column position defined as the right margin, the terminal automatically prints the next character in the column position defined as the left margin of the next line. This feature is called automatic new line.

3.3.4.3 Control Characters. There are 33 control characters defined by ASCII. Although the Model 820/825 KSR is capable of generating and transmitting all 33 control characters, it responds only to those listed below. The Model 820/825 RO is capable of generating locally only those control characters listed in paragraph 3.2.3; it is capable of transmitting all 33 if any are included in the ABM message. However, any control characters received are acted upon similarly to the KSR machine if listed below. Any control characters not listed below are ignored (except when parameter 87 is enabled) in both the Model 820/825 KSR and RO Terminals.

BS	Backspace moves the printhead one character space to the left. **BS** is ignored if the printhead is at the left margin.
CR	Carriage return causes the next printable character to be printed in the character position defined as the left margin. **CR** also advances the paper one line space if the appropriate new line feature is configured (parameter 85 enabled).
RETURN	**RETURN** causes **CR** and **LF** to be transmitted if the appropriate feature is configured (parameter 86 enabled, KSR only). On Model 820 Terminals only, **RETURN** causes **CR** and the first LTA character to be transmitted if the appropriate parameters are enabled and disabled (12, 67, and not 66, Model 820 KSR only).
FF	Form feed positions the printhead to the top left margin of the next page.
LF	Line feed advances paper one line space. If **LF** advances paper beyond the bottom margin, the paper advances to next top margin. **LF** also causes a carriage return if the appropriate new line feature is configured (parameter 84 enabled).
BEL	Bell sounds the audible tone generator for 80 milliseconds.
HT	Horizontal tab advances the printhead to the next tab stop, if the DFC option is installed. With no tabs set between the present print position and the right margin, a horizontal tab is treated as a carriage return/line feed so that the next printable character appears at the left margin of the next line. **HT** is ignored if the DFC option is not installed.
SO	Shift out selects an alternate character set, such as APL, for printing. **SO** is ignored if an alternate character set option is not installed.
SI	Shift in selects the primary character set for printing (cancels **SO**). **SI** is ignored if an alternate character set option is not installed.

DC1	Device control 1 is transmitted by the terminal to indicate buffer ready if parameter 83 and a full-duplex communication mode (13, 14, 15, or 16) is enabled. **DC1** is ignored when received.
DC3	Device control 3 is transmitted automatically to indicate buffer full if parameter 83 and a full-duplex communication mode (13, 14, 15, or 16) is enabled. **DC3** is ignored when received.
ENQ	Enquiry receipt activates the answerback memory (ABM) if an ABM is programmed. In half-duplex operation (Model 820 Terminals only), transmission of **ENQ** or receipt of **ENQ** followed by loss of carrier initiates a line turnaround if, and only if, the ABM is programmed.
EOT	End-of-transmission is a disconnect character if parameter 62 or 63 is enabled; otherwise, **EOT** is ignored.
DLE	Data link escape receipt followed by **EOT** initiates disconnect if parameter 63 is enabled; otherwise, **DLE** is ignored.
ESC	Escape identifies the subsequent character or character sequence as a terminal command if the DFC option is installed. **ESC** is ignored if the DFC option is not installed.

3.3.5 Setting the Top-of-Form

The top-of-form is set by either of the following methods.

3.3.5.1 Method 1 (Using ↑ and ↓).

1. Press and hold the **FORM ADV** pushbutton for at least 0.25 second to advance the paper and initialize the line count to one.
2. Use the ↑ and ↓ pushbuttons as required to position the paper so that line one (the top-of-form) can be printed. (Do not use the **LINE FEED** key because the line count is incorrect.)

NOTE

It may be easier to open the tractor flaps and move the paper to the approximate position required before using the ↑ and ↓ pushbuttons.

3.3.5.2 Method 2 (Using ESC).

1. With the **LINE/•/LCL** switch in **LOCAL** or •(standby) position, use the **LINE FEED, LF,** or **LINE ADV** key to move the paper to the desired top-of-form point.
2. Press the **ESC** and **5** keys in sequence.
3. Press the **CR** key (RO) or the **;** key (KSR).
4. The top-of-form is now set; the terminal responds with a short audible tone.

3.3.6 Paper-Out Condition

When the paper supply is exhausted, the terminal stops printing, sounds the audible tone, and displays an error code. The remainder of the form currently being printed may be completed by pressing the **RESET** pushbutton once for each line to be printed (if this is done, the error condition display remains on). When the current form is completed, it may be ejected by pressing the **FORM ADV** pushbutton (for longer than 0.25 second) and a new supply of forms installed. Pressing the **RESET** pushbutton after loading new paper clears the error condition.

3.3.7 Mechanism Failure Detection

The control electronics constantly monitors a tachometer signal from the carriage drive motor and determines the response of the carriage to positioning commands. If a high-friction condition or obstruction is detected, printing is inhibited, the audible tone sounds, and a mechanism failure (carriage jam, code 11) code is displayed by the TSD.

If the terminal is configured to issue a BREAK signal or to disconnect when a paper-out condition occurs, the same action will be taken when a mechanism failure occurs.

3.3.8 Data Buffering and Printer Throughput

All data to be printed by the Model 820/825 KSR or RO is passed through a first-in-first-out (FIFO) buffer memory which has a maximum capacity of 1280 characters (Model 820 Terminals) or 256 characters (Model 825 Terminals). The terminal monitors the number of characters stored in the buffer and selects an appropriate print mode accordingly.

When only one or two characters are stored in the buffer, as would occur during keyboard entry, the printer functions incrementally, printing one character at a time. Operation is unidirectional; that is, characters are printed from left to right with a carriage return and line feed at the end of each line.

If the number of characters stored in the buffer increases, as would occur when receiving continuous data from a 300-baud line, the printer switches to a continuous unidirectional mode. No fill characters are required after carriage return, line feed, or tab commands since the print speed is adequate to prevent overflowing the buffer at data rates up to 300 baud.

If the number of stored characters increases to the point where more than one line is waiting in the buffer to be printed, the printer switches to a high-speed bidirectional mode. In this mode, data is printed one line at a time. At the end of each line, the printhead is positioned to print the next line either forward or backward, whichever direction requires less time.

In the bidirectional mode the printer "keeps up" with a continuous data stream (up to 1200 baud on the Model 820, 600 baud on the Model 825) without buffer overflow, provided the data is formatted into lines of 29 characters or longer. Maximum throughput for full 132-column lines is 60 lines per minute on the Model 820, 30 lpm on the Model 825.

The terminal may be configured (parameter 83 enabled) to transmit a BUSY signal when there is a danger of buffer overflow, followed by a READY signal when the printer overtakes the incoming data. BUSY is transmitted when fewer than 256 (Model 820) or 32 (Model 825) vacant character spaces remain in the buffer, and READY is transmitted when the buffer contains more than 1024 (Model 820) or 32 (Model 825) vacant character spaces. If buffer overflow occurs, the audible tone sounds, and an error code is displayed.

BUSY and READY signals depend on the Communication mode, as explained in Section 2.

3.4 COMMUNICATION INTERFACE

The communication interface provides the method by which the Model 820/825 Terminals interchange data with the host system.

3.4.1 Interface Signals

The communication interface signals conform to the electrical requirements of EIA Standard RS-232-C and C.C.I.T.T. Standard V24. Table 3-5 lists the signals provided at the Model 820/825 communication interface. A functional description of each interface signal is given in the following paragraphs.

- Protective Ground (AA) — This lead is connected to the terminal frame and earth ground conductor of the power cord.
- Signal Ground (AB) — Tied to the dc ground of the terminal power supply, this lead establishes the common ground reference for all interface signals.
- Transmitted Data (BA) — This lead conveys signals from the terminal data transmitter output to the data set transmitter circuits. It is held to a MARK condition when no data or break signals are being transmitted.
- Received Data (BB) — This lead conveys signals from the external data set receiver to the terminal data receiver input.

Table 3-5. Interface Signals

CONNECTOR PIN NUMBER	EIA	C.C.I.T.T.	EIA NAME
1	AA	101	Protective Ground
2	BA	103	Transmitted Data
3	BB	104	Received Data
4	CA	105	Request to Send
5	CB	106	Clear to Send
6	CC	107	Data Set Ready
7	AB	102	Signal Ground
8	CF	109	Received Line Signal Detector
11	SCA	120	Secondary Reqest to Send
12	SCF	122	Secondary Received Line Signal Detector
20	CD	108	Data Terminal Ready
22	CE	125	Ring Indicator
23	CH	111	Data Signal Rate Selector

- Request to Send (CA) — This line is used by the terminal to control the transmitter carrier of the data set. Request to send is held on at all times when the terminal is configured for full-duplex operation and circuit CC (data set ready) is on. For half-duplex (Model 820 Terminals only) operation, request to send is controlled by the configured line turnaround character and reverse channel options as well as the paper-out response and buffer response options.

- Data Set Ready (CC) — This line is switched on by the data set to indicate that a connection has been established. The terminal does not attempt to receive or transmit data across the interface when data set ready is off.

- Data Terminal Ready (CD) — This line is switched on by the data terminal to indicate that it is ready to receive a call. Operation depends on the position of the **LINE/•/LCL** switch, the configured paper-out response, and the configured disconnect features.

- Ring Indicator (CE) — This line is switched on by the data set to indicate that a ringing signal is being received on the communication line. This signal is not used by the Model 820/825 KSR or RO Terminals.

- Received Line Signal Detector (CF) — This line, also called data carrier detect, is switched on by the data set to indicate that it has received a valid carrier signal from the remote data set. The terminal does not accept data from the interface if this signal is off. The CF line (and no other) is regarded as on when open (floating) to permit operation with data sets such as the Bell System 113 series, which do not provide circuit CF.

- Secondary Request to Send (SCA), Model 820 Terminals only — This line, also called transmitted reverse channel, is held on by the Model 820 Terminal to switch on the reverse channel transmitter of a Bell System 202-compatible data set equipped with a reverse channel option. The transmitted reverse channel indicates that the terminal is ready to receive data when operating in the half duplex with reverse channel communication mode (parameter 12). The SCA signal is switched off at line turnaround or when a BREAK signal is transmitted in response to BREAK key activation (Model 820 KSR only) or the configured paper-out or buffer response features.

  This output is also used by both the Model 820 and Model 825 Terminals as a READY/BUSY indication for full-duplex mode in console applications (parameter 14, 15, or 16).

- Secondary Received Line Signal Detector (SCF) — This signal, also called received reverse channel, has a dual function, depending on the external data set. It is held on by Bell System 202-series data sets to indicate receipt of a valid reverse channel carrier from a remote data set. When the terminal is configured for the reverse channel feature, it does not transmit data until reverse channel is received. The terminal treats a loss of reverse channel which exceeds 112 ms as a break signal and performs a line turnaround from transmit to receive mode.

  Bell System 212-compatible data sets use the SCF signal as a baud-rate indicator, holding the signal on for 1200 baud operation and off for 300 baud. The Model 820 Terminals may be configured to adjust transmit and receive data rates automatically in response to this signal (parameter 29). The Model 825 Terminals do not use this signal.

- Data Signal Rate Selector (CH) — This signal is held high by the Model 820 Terminals to indicate a configured baud rate of 1200 or faster, and low to indicate a slower baud rate. If parameter 29 is selected, this signal is held high.

  This signal is held off by the Model 825 Terminals.

3.4.2 Interface Signal Levels

When it is ON, a control line carries a positive voltage between +3 and +25 volts. When the line potential changes to a negative voltage between −3 and −25 volts, the line is considered to be OFF. The digital data exchanged between the Model 820/825 Terminals and an external data set consists of a series of logic ONE and ZERO signals. A logic ONE, called a MARK, is indicated by a negative voltage between −3 and −25 volts. A logic ZERO, called a SPACE, is indicated by a positive voltage between +3 and +25 volts.

In summary, a positive voltage on a control line is an ON condition; but a positive voltage on a data line represents a SPACE or logic ZERO. A negative voltage on a control line is an OFF condition, but on a data line a negative voltage represents a MARK or logic ONE.

3.4.3 Local Mode

When the **LINE/•/LCL** switch is in the **LCL** position, the Model 820/825 KSR or RO Terminal is in the local mode. In the local mode the terminal operates as follows:

- No data is exchanged with the host system.
- The interface signal data terminal ready is switched OFF.
- Data entered on the keyboard/keypad is echoed to the printer.
- Both the **LINE RDY** and **CARR RCV** indicates are held OFF.

3.4.4 Standby Mode

When the **LINE/•/LCL** switch is in the center position (•), the terminal is in the standby mode. In the standby mode the terminal operates as follows:

- No data is exchanged with the host system.
- The interface signal data terminal ready is maintained in its present state; that is, if the signal had been ON, it remains on and the Model 820/825 continues to monitor the communications interface signals without exchanging data. If data terminal ready had been OFF (local mode), the terminal maintains it off and behaves similar to local mode operation.
- Data entered on the keyboard of the Model 820/825 KSR or valid code-generating keystrokes from the Model 820/825 RO are echoed to the printer.
- If data terminal ready is ON, and data set ready is still being received by the terminal, the **LINE RDY** indicator blinks, indicating standby status.

NOTE

The terminal does not signal the host system when the terminal is placed in standby mode, except if parameter 14, 15, or 16 is enabled, which causes the terminal to exhibit busy status on circuit SCA.

3.4.5 Line Mode

When the **LINE/•/LCL** switch is in the **LINE** position, the terminal is in the line mode or online. In the line mode the terminal operates as follows:

- Data is exchanged with the host system in accord with the configured communication mode as explained in the following paragraphs.
- The interface signal data terminal ready is switched ON.
- Data entered on the Model 820/825 KSR keyboard is transmitted if a call is in progress.

3.4.5.1 Full-Duplex Operation. In full-duplex mode the transmit and receive circuits are independent. The terminal operator initiates communication mode operation by setting the **LINE/•/LCL** switch to the **LINE** position, which switches on the data terminal ready (DTR) line. The Model 820/825 KSR or RO then waits for the data set to switch on data set ready (DSR). When ready to exchange data with a remote device, the external data set switches on the DSR line. If the terminal does not detect a DSR signal it waits (the keyboard is disabled while the terminal is waiting) until DSR switches ON.

The Model 820/825 Terminal switches on the request to send (RTS) line as soon as it detects that the DSR line has been switched on by the external data set. At the same time the Model 820/825 causes the **LINE RDY** indicator on the operator control panel to start flashing.

To begin the actual data exchange two signals are now required: data carrier detect (also called received line signal detector) and clear to send. The receive circuit requires that the data carrier detect (DCD) signal is ON to begin operation, and the transmit circuit requires that the clear to send (CTS) line is ON. Although the receive and transmit sequences occur simultaneously, each sequence is described separately in the following discussion.

Transmit Sequence. The Model 820/825 Terminal must receive a clear to send (CTS) signal from the external data set before it can transmit data. After CTS switches ON, the **LINE RDY** indicator on the operator control panel stops flashing and glows steadily. The terminal then can transmit data to the external data set via the transmitted data (TD) line. Data from the Model 820/825 KSR keyboard is transmitted as it is entered; the ABM message and/or terminal reports from the RO and KSR machines are transmitted as blocks of data. The data on the TD line enters the data set, where it is modulated for transmission over the telephone line. Transmission of data may continue until the CTS or DSR signal is lost.

If the CTS line goes OFF, the **LINE RDY** indicator on the control panel begins flashing and any character being transmitted is completed, but no new characters are transmitted until CTS switches back ON. Any characters entered via the Model 820 KSR keyboard while CTS is off are stored in a 32-character first-in-first-out (FIFO) buffer. The characters in the FIFO buffer are transmitted when CTS switches back ON. After 32 characters are entered into the buffer with CTS OFF, an alarm sounds when entry of the 33rd character is attempted, an error code 25 is displayed on the terminal status display (TSD) of the control panel, and the last character entered is lost.

If DSR goes OFF, indicating that the call has been disconnected, the terminal **LINE RDY** indicator extinguishes and any characters remaining in the transmit FIFO buffer are lost. The Model 820/825 responds to the loss of DSR by switching off RTS and DTR. DTR remains OFF until DSR has been OFF for three seconds; DTR is then switched ON to prepare the data set for the next call.

Receive Sequence. The data carrier detect (DCD) line from the external data set must be ON for the terminal to receive data on the received data line. When DCD is detected by the terminal, the **CARR RCV** indicator on the control panel lights. If the DCD line switches off, the **CARR RCV** indicator extinguishes, and the terminal stops receiving data until DCD comes ON again.

NOTE

> *Only the Model 820 Terminals* are capable of operating in the half-duplex modes described in the following paragraphs. The Model 825 Terminals operate only in the full-duplex mode.

3.4.5.2 Half Duplex (Without Reverse Channel) Operation, Model 820 Terminals Only.

When the Model 820 KSR or RO is operating in half-duplex mode, data communications can take place only in one direction at a time. That is, when the Model 820 KSR or RO Terminal is transmitting in half-duplex mode, the remote unit must be in receive mode. Likewise, when the Model 820 Terminal has completed transmission and is ready to receive data from the remote unit, a method is required to inform the remote unit to stop receiving and start transmitting.

The control of a remote receiving device by the transmitting unit is referred to as line control. The Model 820 Terminals employ two different schemes to achieve line control in half-duplex mode. The first, and most prevalent, requires the use of line turnaround (LTA) characters. The second method, selected by enabling parameter 66 along with code 11 or 12, utilizes no-LTA characters and is discussed in paragraph 3.4.5.4. The LTA method is detailed in the following paragraphs.

When the Model 820 KSR or RO receives an LTA character, it switches from receive mode to a mode from which characters may be transmitted to a remote terminal. The Model 820 KSR may now transmit characters entered from the keyboard, and either Model 820 may now transmit ABM messages or one of the various reports. It is the responsibility of the transmitting unit to provide an LTA character on completion of transmission. The receiving unit has no control of the communications lines until it receives a line turnaround character and becomes the transmitting unit.

The Model 820 can be configured to recognize any of three different turnaround characters at any given time. Any of the 128 ASCII characters may be assigned as a turnaround character. If an answerback memory (ABM) message has been programmed, the control character ENQ is also treated as an LTA character.

When the Model 820 transmits an LTA character, it waits long enough for the character to be received by the host unit, and then reverts to receive mode and accepts data from the host unit.

The operator initiates communication mode operation by setting the Model 820 Terminal **LINE/•/LCL** switch to the **LINE** position. This causes the data terminal ready (DTR) line to switch on, informing the external data set that the Model 820 KSR or RO is ready to exchange data. When the data set switches on the data set ready (DSR) line, indicating the establishment of a call, the Model 820 begins to monitor the data carrier detect (DCD) line to determine if it should switch to the receive mode and accept any incoming data. If the operator enters a keyboard character on the Model 820 KSR, or if the automatic ABM feature is enabled and is triggered on either the Model 820 KSR or RO terminals, and DCD has not yet been received, the Model 820 switches to transmit mode and transmits as soon as it receives the signal clear to send (CTS) from the data set. The Model 820 raises its request to send (RTS) upon character entry or ABM triggering, but does not begin to transmit until CTS has become valid.

NOTE

> The Model 820 RO terminal must be carefully programmed if it is to be used with a half-duplex data set. It can only transmit if either a status or configuration report is requested by the remote unit, or if an ABM message is to be sent, either automatically triggered or requested by the host unit. No problems should occur in requesting a status or configuration report, since the Model 820 sends an LTA character at the end of the report, which should turn the line around. Care must be taken, however, with the ABM message. If an LTA character is not programmed into the message, the Model 820 RO can "lock up" in transmit mode and never relinquish control of the communication line to the host unit. This situation can only be cleared by dis-

connection. Likewise, if the Model 820 KSR is to be used in an unattended situation, the same procedure should be observed since no operator is nearby to transmit an LTA character and return control to the host unit.

If the external data set switches the DCD line ON, indicating a carrier present on the communication line, the Model 820 switches to the receive mode, the **CARR RCV** indicator illuminates, and the **LINE RDY** indicator remains lit.

The Model 820 remains in the receive mode until it receives a turnaround character on the received data line or the call is disconnected. It is not the responsibility of the external data set to detect the line turnaround character. The data set sends the character to the Model 820 KSR or RO along with all other characters on the data line. The Model 820 Terminal is responsible for recognizing the turnaround character and for acting on it.

When the Model 820 detects a line turnaround character, the receive circuits are disabled, the **CARR RCV** indicator extinguishes, and the RTS line is switched ON. The **LINE RDY** indicator on the control panel begins to flash until the external data set switches on the CTS line. After the CTS line is switched ON, the **LINE RDY** indicator glows steadily.

The terminal remains in the transmit mode until a line turnaround character is transmitted. It is the responsibility of the transmitting party to ensure that the last character of a message is a line turnaround character.

3.4.5.3 Half Duplex (with Reverse Channel) Operation, Model 820 Terminals only. Half duplex with reverse channel operation is similar to half duplex, except a low-frequency secondary channel (commonly referred to as the reverse channel) is added. In a half-duplex system the transmitting unit controls the unit that is receiving. In a half duplex with reverse channel system, the receiving unit can also cause a line turnaround by use of the reverse channel.

Additional control lines are used in half duplex with reverse channel communications. The two reverse channel lines are secondary received line signal detector (circuit SCF) and secondary request to send (circuit SCA). When the Model 820 switches on the reverse channel SCA line, the signal is received by the remote unit as a reverse channel SCF signal. Likewise, when the remote unit switches on the reverse channel SCA line, the signal is received by the Model 820 as a reverse channel SCF signal.

No officially recognized standard exists to specify use of the reverse channel. The Model 820 Terminal sequence of events for reverse channel operation is described below.

Initiation of half-duplex data communications with reverse channel is identical to the half-duplex operation described in subparagraph 3.4.5.2 with a few exceptions. When the **LINE/•/LCL** switch is set to **LINE**, the Model 820 switches on the DTR line and waits for a DSR signal from the external data set. When the Model 820 KSR or RO detects the DSR signal from the data set, the terminal enters an idle state, holding SCA on, until the necessary parameters are detected to enable the Model 820 to switch into either the transmit or receive mode.

Transmit Sequence. If an ABM message is to be transmitted prior to DCD becoming valid, or if data is entered from the keyboard of the Model 820 KSR before DCD becomes valid, the Model 820 KSR or RO switches to the transmit mode by dropping SCA and exerting RTS. The terminal then waits for CTS and SCF to become valid before transmitting. Any data waiting to be transmitted prior to CTS and SCF becoming valid is stored in the 32-character FIFO transmit buffer of the Model 820 terminals. After CTS and SCF become valid, the **LINE RDY** indicator lights and the terminal transmits the stored data via the transmitted data (TD) line.

When transmitting, the Model 820 continually checks the reverse channel SCF line. If reverse channel SCF switches OFF, the Model 820 KSR holds the transmitted data line at a MARK state and starts a time-out. If the reverse channel SCF line returns to an ON condition within 112 ms, the Model 820 resumes transmission of the characters stored in its transmit FIFO buffer. If reverse channel SCF remains OFF for longer than 112 ms (indicating that the receiving unit has initiated a line turnaround), the terminal switches to the receive mode, the Model 820 Terminal switches off the

RTS line, and any characters remaining in the transmit FIFO buffer are lost.

Receive Sequence. When the Model 820 Terminal switches to the receive mode, it switches on the reverse channel transmit SCA (secondary request to send) line. When the external data set switches on the DCD line, the Model 820 KSR or RO begins to accept data until it receives a line turnaround character. On the Model 820 KSR machine, the operator may intentionally initiate a line turnaround from receiving to transmitting by pressing the **BREAK** key.

If an LTA character is received (for LTA operation only), or if the **BREAK** key of the Model 820 KSR is pressed, the terminal responds by switching off the reverse channel SCA line. The terminal continues to accept data from the received data (RD) line until the DCD line switches OFF. The terminal also monitors the reverse channel receive SCF line following a turnaround from receive to transmit mode. If the reverse channel SCF does not switch on within eight seconds after the terminal switches on the RTS line, the RTS line is switched OFF, the reverse channel SCA switches back ON, and the Model 820 Terminal returns to the receive mode.

NOTE

> The above description of half duplex with reverse channel communication mode (parameter 12) is intended to explain ordinary (LTA) operation. Operation with parameter 66 enabled is explained in the next paragraph.

3.4.5.4 No-LTA Operation (Half-Duplex Modes 11 and 12), Model 820 Terminals Only.

For no-LTA operation (parameter 66 enabled) in either half-duplex mode, calls are established, signals are required, and data is transferred exactly the same way as ordinary LTA operation. The difference lies only in the determination of which communicating unit has control of the line.

When the Model 820 is switched online, it remains in an idle mode until one of two things occurs. If there is data to be transmitted and DCD has not yet become valid, a switch to transmit mode is affected, and the Model 820 has control of the line until it turns RTS off, at which point it again enters an idle state. Meanwhile, the host unit is assumed to have transferred from receive mode to an idle mode. If the Model 820 does not have any data to transmit at the time of connection or any time thereafter, it remains in the idle mode until DCD becomes valid, indicating that the other terminal is requesting control of the line. The Model 820 KSR or RO then switches to receive mode and remains there until the host unit turns DCD off, whereupon both units return to an idle state.

If the Model 820 KSR is being operated in an attended mode, return from transmit to idle mode is accomplished by simultaneously pressing the **CTRL, SHIFT,** and **RETURN** keys of the Model 820 keyboard. Effective with ROMSET 09B/10B, it is only necessary to press the **RETURN** key if configuration parameter 67 is enabled. The Model 820 KSR or RO automatically returns to idle mode after the transmission of any message or report.

3.4.5.5 Console Operation, Models 820 and 825 Terminals.

The console modes of operation are provided for hard-wired (back-to-back), high-speed applications that do not use a data set. The console modes should not be used in conjunction with a data set; conversely, data set modes should not be used for hard-wired applications.

The console full-duplex mode operates generally the same as the data set full-duplex mode, except that no timing constraints are placed on the communications interface and the READY/BUSY status is reported via the reverse channel transmit (SCA) line. The EIA control lines DCD and DSR must be ON for the Model 820/825 KSR or RO to receive data. The control lines DSR and CTS must be ON for the Model 820/825 to transmit data. The Model 820/825 maintains DTR and RTS in an on condition.

3.5 OPTIONS

Operation of the various options available for the Model 820/825 Terminals is explained in this section.

3.5.1 DEVICE/FORMS CONTROL (DFC)

The device/forms control option provides the Model 820/825 Terminals the capability to recognize special commands (ESC sequences) and to perform two classes of functions:

- Extended device control
- Forms control

In addition, the DFC option provides the capability to evaluate the ASCII control characters HT (horizontal tabulation) and VT (vertical tabulation).

Two sets of DFC commands are implemented. The first set contains those commands most frequently used by the operator. These commands typically require only two entries from the keyboard, **ESC** plus another key (the keyboard bezel is engraved with a legend which identifies most of the commands in this set). The second set of commands is intended to be received from the communications interface in the received data but also may be entered from the keyboard. Table 3-6 lists the device control commands and Table 3-7 lists the forms control commands. (Refer to paragraph 3.3.2 for a definition of the format parameters.)

NOTE

> Configuration parameter 81 must be enabled before ESC sequences are recognized in the received data.

3.5.2 COMPRESSED PRINT

The compressed print option for the Model 820/825 provides printing at 16.5-characters-per-inch (cpi) pitch and 8.25-cpi pitch in the double-wide mode, in addition to the standard pitches of 10 cpi and 5 cpi (double-wide standard). The 16.5-cpi pitch permits printing full 132-column lines on 215.9 mm (8.5 in) wide forms. The 8.25-cpi pitch prints 66 columns on the same width line. Maximum line lengths for all pitches available with this option are as follows:

- 10 cpi (standard) = 132 columns
- 16.5 cpi (compressed) = 218 columns
- 5 cpi (standard double-wide) = 132 columns (66 characters)
- 8.25 cpi (compressed double-wide) = 218 columns (109 characters)

NOTE

> Attempting to select the compressed print operation, either by configuration code or DFC command, on a terminal without the compressed print option is not allowed by the Model 820/825 KSR or RO Terminal.

With the compressed print option installed, compressed printing may be selected from the keyboard as part of the configuration procedure by enabling parameter 88. If the device/forms control option is installed, pitch also may be selected using the appropriate ESC sequences entered from the keyboard or received from the communication line, provided the terminal is not configured with the parameter 88 set (compressed print only). For satisfactory operation, horizontal pitch changes should be made only at the beginning of a new print line.

Table 3-6. Device Control Commands for Model 820/825 Terminals

FUNCTION TYPE	RO LOCAL/STANDBY	KSR LOCAL/STANDBY	KSR or RO LINE	DESCRIPTION
Printer Control	ESC FF	ESC –	ESC P A ESC or ESC P A	Select 6 lines/inch (SS, 6 LPI)
	ESC E	ESC =	ESC P B ESC or ESC P B	Select 3 lines/inch
	ESC BS	ESC _	ESC P H ESC	Select 8 lines/inch (SS, 8 LPI)
	ESC F	ESC +	ESC P G ESC	Select 4 lines/inch (DS, 8 LPI)
	ESC C	ESC >	ESC P C ESC or ESC P C	Select 10 char/inch (Standard)
	ESC A	ESC ·	ESC P I ESC	Select 5 char/inch (Double wide standard)
	ESC D	ESC <	ESC P D ESC ESC P D	Select 16.5 char/inch (Compressed)
	ESC B	ESC ,	ESC P J ESC	Select 8.25 char/inch (Double wide compressed)
	n/a	n/a	ESC P E ESC or ESC P E	Printer Off
n/a	n/a	ESC P F ESC or ESC P F	Printer On	
n/a	n/a	ESC \	Keyboard lock	
n/a	n/a	ESC b	Keyboard unlock	
Display Control	ESC LF	ESC LINE FEED	n/a	Display current line number
	ESC SP	ESC SPACE	n/a	Display next column number
Tabulation	n/a	n/a	ESC [M	Tab right to column M
	n/a	n/a	ESC [M a	Tab right exactly M columns
	n/a	n/a	ESC [N d	Advance paper to line N (from top)
	n/a	n/a	ESC [N e	Advance paper N lines
Report Control	n/a	n/a	ESC [c	Send configuration report
	n/a	n/a	ESC [n	Send status report

Table 3-7. Forms Setup Commands for Model 820/825 Terminals

FUNCTION TYPE	RO LOCAL/STANDBY	KSR LOCAL/STANDBY	KSR or RO LINE	DESCRIPTION
Form Size	ESC 5 *N* CR	ESC [*N* ;	ESC [*N* t	Form length = *N*, Top of Form = Present Line
	ESC 5 CR	ESC 5 ;	n/a	Top of Form = Present Line
	ESC 5 0 CR	ESC 5 0 ;	n/a	Bottom of Form = Present Line
Form Margins	ESC 6	ESC 6	n/a	Left Margin = Present Column
	ESC DEL 6	ESC DEL 6	n/a	Left Margin = Column 1 (Default Value)
	ESC 7	ESC 7	n/a	Right Margin = Present Column
	ESC DEL 7	ESC DEL 7	n/a	Right Margin = Default Value
	ESC 8	ESC 8	n/a	Top Margin = Present Line
	ESC DEL 8	ESC DEL 8	n/a	Top Margin = Default Value
	ESC 9	ESC 9	n/a	Bottom Margin = Present Line
	ESC DEL 9	ESC DEL 9	n/a	Bottom Margin = Default Value
	ESC 0	ESC 0	n/a	Clear All Margins to Default Values
	n/a	n/a	ESC [*N* r	Top Margin = Line Number *N*
	n/a	n/a	ESC [; *M* r	Bottom Margin = Line Number *M*
	n/a	n/a	ESC [*N* ; *M* r	Top Margin = *N*, Bottom Margin = *M*
	n/a	n/a	ESC [*N* s	Left Margin = Column Number *N*
	n/a	n/a	ESC [; *M* s	Right Margin = Column Number *M*
	n/a	n/a	ESC [*N* ; *M* s	Left Margin = *N*, Right Margin = *M*
Horizontal	ESC 1	ESC 1	ESC H	Set Horizontal Tab at Present Position
Tabulation	n/a	n/a	ESC [2 g	Clear all Horizontal Tabs
	n/a	n/a	ESC [M_1 ; . . . ; M_x u	Set Horizontal Tabs at Columns M_1 . . . M_x (16 max)
	ESC 2	ESC 2	ESC [0 g	Clear Horizontal Tabs at Present Position
Vertical	ESC 3	ESC 3	ESC J	Set Vertical Tab at Present Position
Tabulation	n/a	n/a	ESC [4 g	Clear all Vertical Tabs
	n/a	n/a	ESC [N_1 ; . . . ; N_x v	Set Vertical Tabs at Lines N_1 . . . N_x (16 max)
	ESC 4	ESC 4	ESC [1 g	Clear Vertical Tabs at Present Position
Forms Storage	ESC VT *N*	ESC / *N*	ESC P K *N* ESC	Store Present DFC Parameters in Memory *N*
	ESC TAB *N*	ESC \ *N*	ESC L *N* ESC	Recall DFC Parameters From Memory *N*
	ESC TAB 0	ESC \ 0	ESC L 0 ESC	Load DFC Default Parameters

3.5.3 User-Defined Configuration Sets

Configuration codes 01 through 08 are reserved in the Model 820/825 Terminals for user-defined configuration options. A choice of two configuration options is available; each option enables the user to predefine up to eight complete configuration parameter sets. The two configuration options are:

- Default configuration option
- Protected configuration option

The default configuration option consists of from one to eight predefined terminal configuration sets the purchaser must specify when the Model 820/825 KSR or RO is ordered. Each of these sets is permanently stored in an inalterable memory (read-only type) supplied as part of the option. The currently selected set may be modified, if desired, via the keyboard while in the configure mode, by enabling or disabling any of the parameter codes. The selected set, including any parameter code changes, is stored in nonvolatile memory for retention when power is switched OFF.

The protected configuration option consists of from one to eight predefined terminal configuration sets the purchaser must specify when ordering the terminal. Each of these sets is permanently stored in an inalterable memory (read-only type) supplied as part of the option. No parameter changes are possible when this version of the option is installed. The selected set is stored in nonvolatile memory for retention when the power is switched OFF.

To select a configuration set, proceed as follows:

1. Enter the configure mode as described in paragraph 2.10.1.
2. Type the two-digit codes corresponding to the desired set.
3. Momentarily press the **RETURN** key (**CR** key of the Model 820/825 RO operator keypad).
4. Listen for an audible tone and ascertain that the code just entered is displayed, signifying that the previous configuration has been replaced with the new set.
5. Terminate the configure mode as described in paragraph 2.10.8.

For both the protected and default configuration options, any attempt to select a configuration for which no parameter set is defined causes a configuration error status. If either configuration option is installed, the terminal defaults to the configuration set defined by code 01 (rather than the standard default configuration defined by code 09) upon failure of the power-up diagnostic test of nonvolatile memory.

3.5.4 Alternate Character Set Keyboard — ASCII/APL (Model 820/825 KSR Only)

The optional APL keyboard shown in Figure 3-6 enables the terminal to transmit and receive both the standard ASCII and the APL characters.

The **SO-SI/LOCK** switch and **ALTN CHAR** indicator shown in Figure 3-7 are added to the control panel with this option installed. The **SO-SI/LOCK** switch, in conjunction with the **O**, **N**, and **CTRL** keys and the control codes SI and SO, permit selection of either the APL or the ASCII mode. With the **SO-SI/LOCK** switch in the **SO-SI** position and the terminal in the LCL mode, APL mode is selected by pressing the **N** key while the **CTRL** key is pressed and held (which generates the control character SO). The **ALTN CHAR** indicator lamp lights to signify that the terminal is in the APL mode. The terminal may be switched to ASCII mode by pressing and holding the **CTRL** key and pressing the **O** key, which generates the control character SI and causes the **ALTN CHAR** indicator lamp to extinguish.

With the terminal in line mode, the APL/ASCII mode may be selected from the keyboard only if local copy of transmitted data (parameter 82) is configured. Otherwise, the terminal responds only to SO and SI characters received from the communication line. If fixed-mode operation (always APL or always ASCII) is required, the desired mode is selected while the terminal is in LCL mode and the **SO-SI/LOCK** switch is placed in **LOCK** position. With the switch in **LOCK** position, the terminal ignores SO and SI characters, whether generated from the keyboard or received from the communication line.

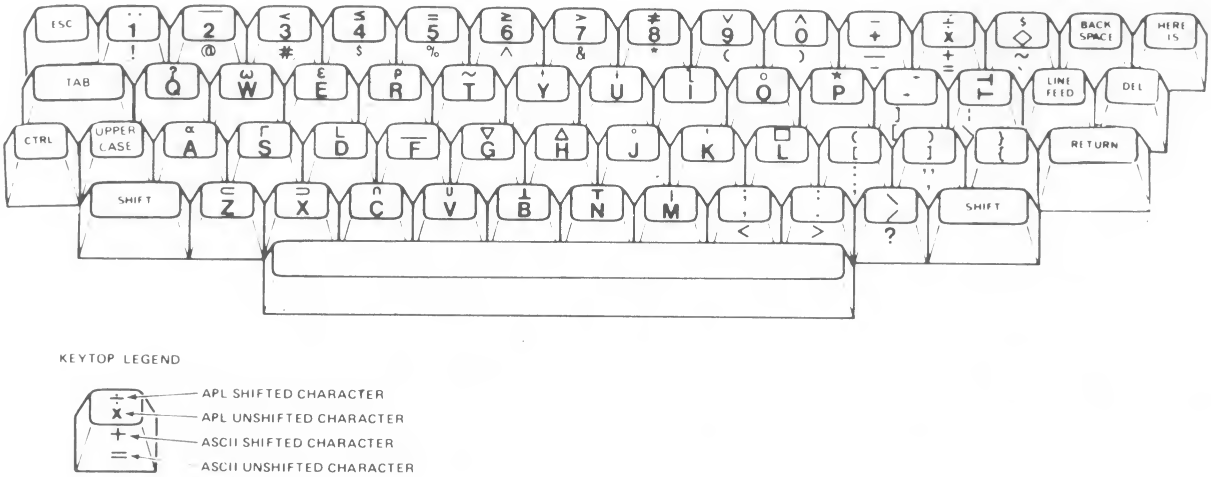

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Figure 3-6. APL Keyboard

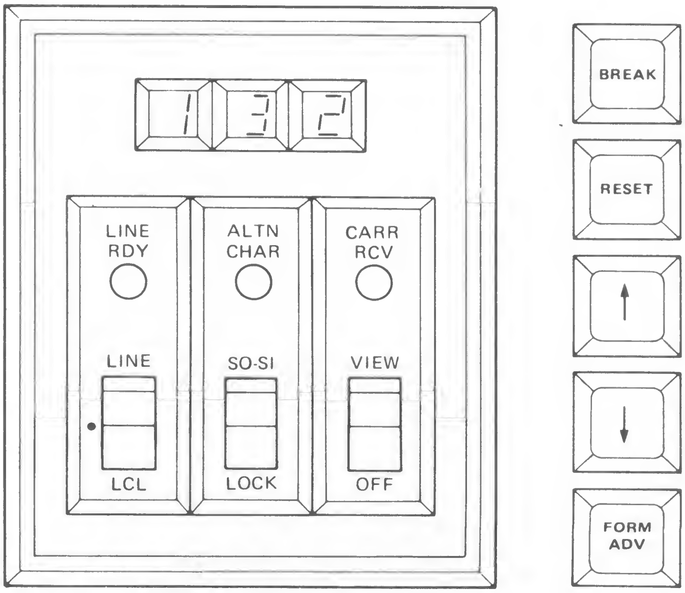

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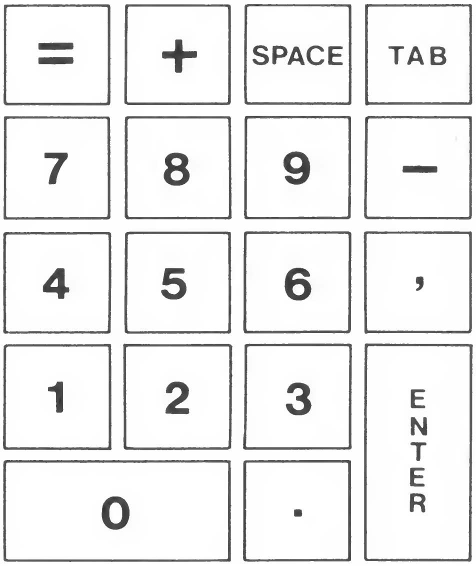
Figure 3-7. Control Panel, US ASCII/APL Option

3.5.5 Numeric Keypad (Model 820/825 KSR Only)

An optional 18-key numeric keypad is available for high-volume number entry applications. Since the numeric keypad must be physically mounted on the main keyboard printed-wiring circuit, this option is usually factory installed. Field upgrade requires replacement of the keyboard assembly.

Numeric keypad layout and symbolization are shown in Figure 3-8. The keypad is available on the standard ASCII and on the optional APL keyboards. The **ENTER** key is user-programmable as described in Section 2.

None of the keys on the numeric keypad have automatic-character-repeat operation. The mode control keys (i.e., **SHIFT**, **UPPER CASE**, and **CTRL**) of the typewriter keyboard have no effect on the numeric keypad functions.



2206552-18

Figure 3-8. Numeric Keyboard

3.5.6 20 mA Current-Loop Interface

An optional 20 mA current-loop interface is available for both the Model 820/825 KSR and RO data terminals. This interface provides an alternate arrangement for data transfer in hard-wired applications. If installed, the current-loop PWB is located beneath the operator panel and has a connector assembly attached to the rear of the case. To operate the Model 820/825 KSR or RO terminal using the current-loop option, do the following:

1. Connect the Model 820/825 to the host unit using the appropriate cable connected to the nine-pin connector at the rear of the terminal.
2. Jumper the signal ground to chassis ground on the terminal PWB by connecting E223 to E222, as described in paragraph 5.6.2 in Section 5.

3. Configure the terminal to parameter 16 plus the proper baud-rate parameter and the proper parity parameter necessary for operation with the host unit.

4. Add any extra configuration parameters desired for terminal control.

NOTE

Parameter 16 is identical to parameter 14, except that the current-loop interface is now enabled. Accordingly, no disconnect parameters or ABM parameters or LTA parameters are functional.

5. Insert the shorting plug into the EIA interface socket at the rear of the Model 820/825. Ensure that all connections are secure.

6. Switch the **LINE/•/LCL** switch to **LINE**. The Model 820/825 KSR or RO is now ready to communicate with the host unit.

3.5.7 Operator's Reference Cards

A set of Operator's Reference Cards is contained in the pull-tab tray located at the front left corner of the terminal. These cards provide a summary of the operational features of the Model 820/825 KSR or RO Terminals.

Section 4

Theory of Operation

4.1 GENERAL

This section describes the theory of operation of the Model 820/825 KSR/RO Terminals. The Model 820/825 Terminals consist of the following major functional components:

- Power supply
- Terminal controller
- Operator interface
- Communication interface
- Ribbon drive subsystem
- Paper drive subsystem
- Printhead carriage drive subsystem
- Printhead subsystem

A block diagram illustrating the relationship of the functional components is shown in Figure 4-1. In addition to the simplified diagrams accompanying this discussion, the text also lists references to the logic diagrams and schematics reproduced in Section 7 of this manual.

On the logic diagrams a signal is considered active when it is high (logic ONE) unless a minus sign (−) follows the mnemonic, in which case it is considered active when it is low (logic ZERO). The mnemonics for all signals are listed in Appendix F of this manual.

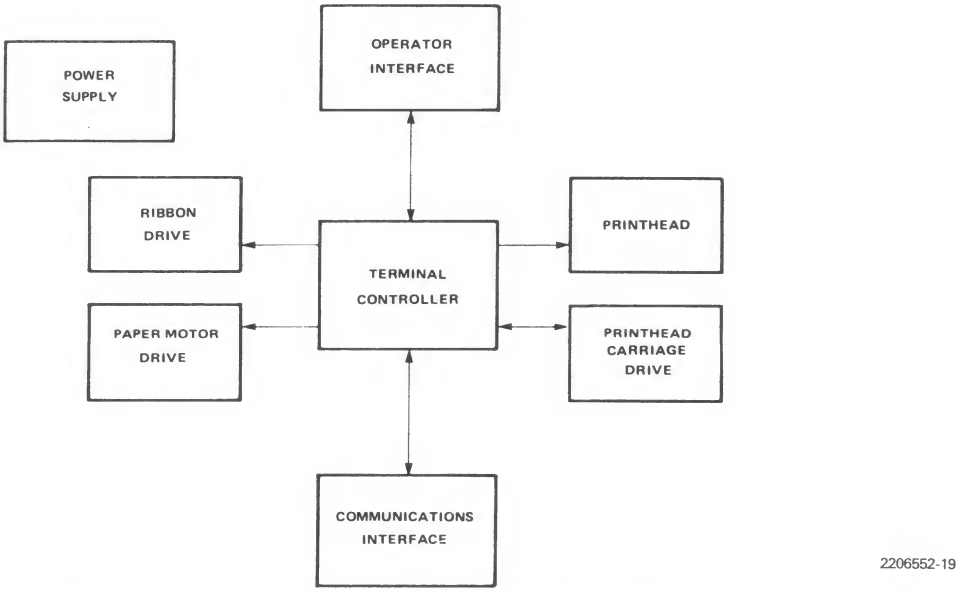


Figure 4-1. Model 820/825 Terminals Simplified Functional Block Diagram

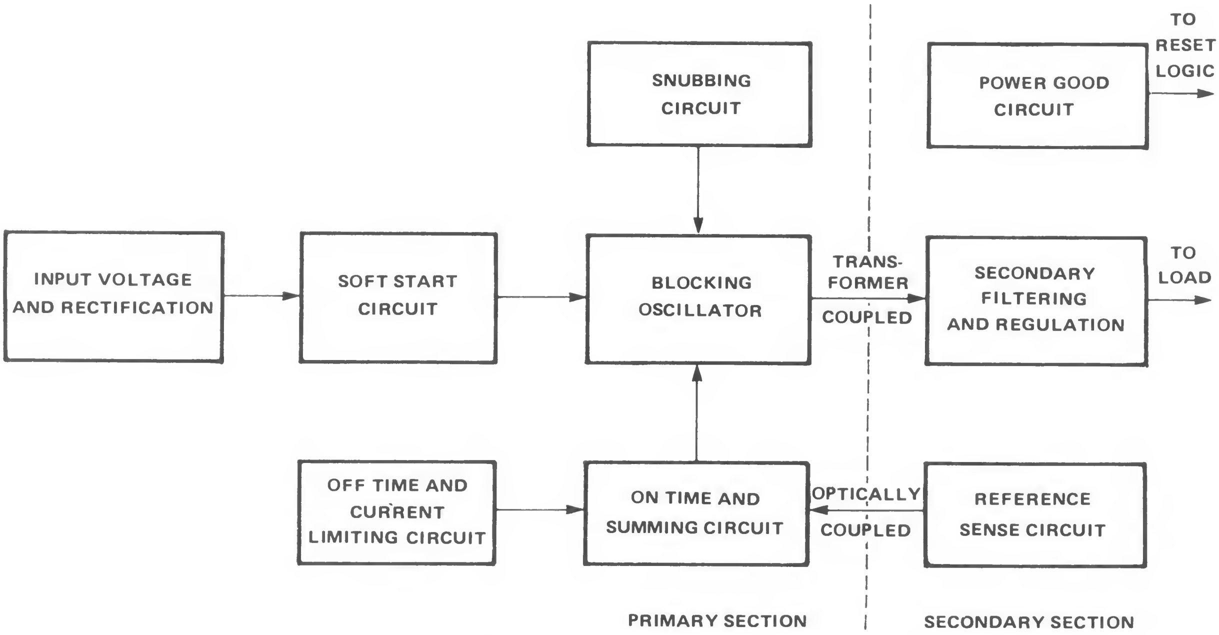
4.2 POWER SUPPLY

The Model 820/825 power supply operates on a self-referencing power conversion principle. The self-referencing power converter operates over an input voltage range of 90 to 280 Vac at a frequency range of 47 to 400 Hz. Jumpers, plus movement of two thermistors on the terminal electronics printed wiring board (PWB) switch the terminal from 115 Vac to 230 Vac operation.

The self-referencing power supply consists of six major parts:

- Input voltage selection and rectification
- Soft-start circuit
- Blocking oscillator
- Reference/sense circuit
- Secondary filtering and regulation
- Power-good circuit

A simplified block diagram of the Model 820/825 KSR/RO power supply is shown in Figure 4-2. Schematics of the earlier model power supply are shown on sheets 13 and 14 of drawing 999945 in Section 7. Later model power supply schematics are shown on drawing 2208267, sheets 13 and 14 in Section 7.



2206552-20

Figure 4-2. Power Supply Block Diagram

4.2.1 Input Voltage Selection and Rectification

Power is supplied through the line filter and power-on switch to E271 and E281 (drawing 2208267, sheet 13). If the terminal is configured for 115 Vac operation, resistor R268 is installed to form a voltage doubler as shown in Figure 4-3. For 230 Vac operation, diodes CR263 and CR264 are installed to form a full-wave bridge and resistor R268 is removed, as shown in Figure 4-4. Capacitor C260 is an ac bypass from the 325 V return to chassis ground, and capacitors C258 and C259 provide the primary energy storage for the terminal.

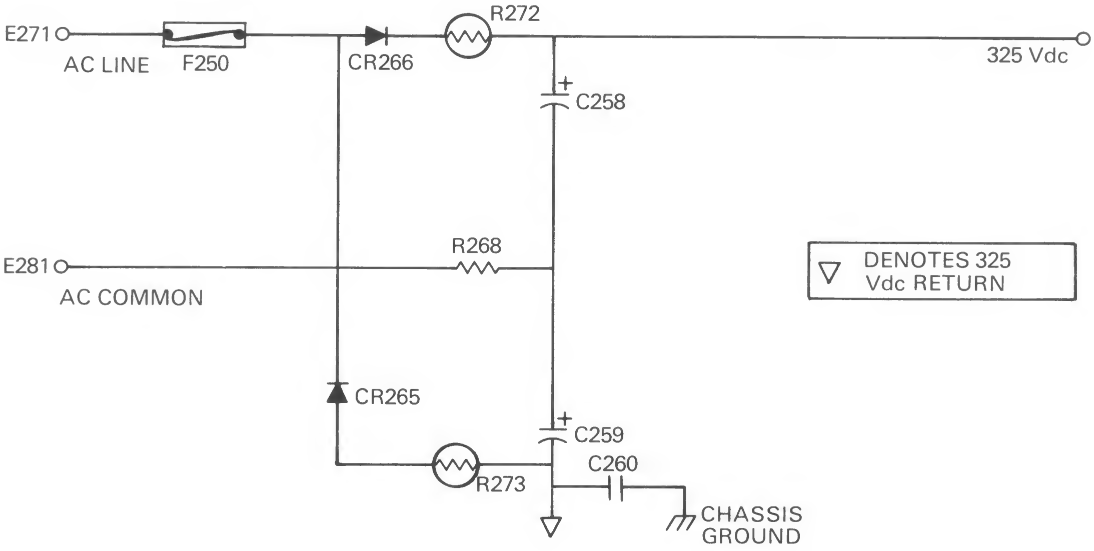


Figure 4-3. Voltage Doubler

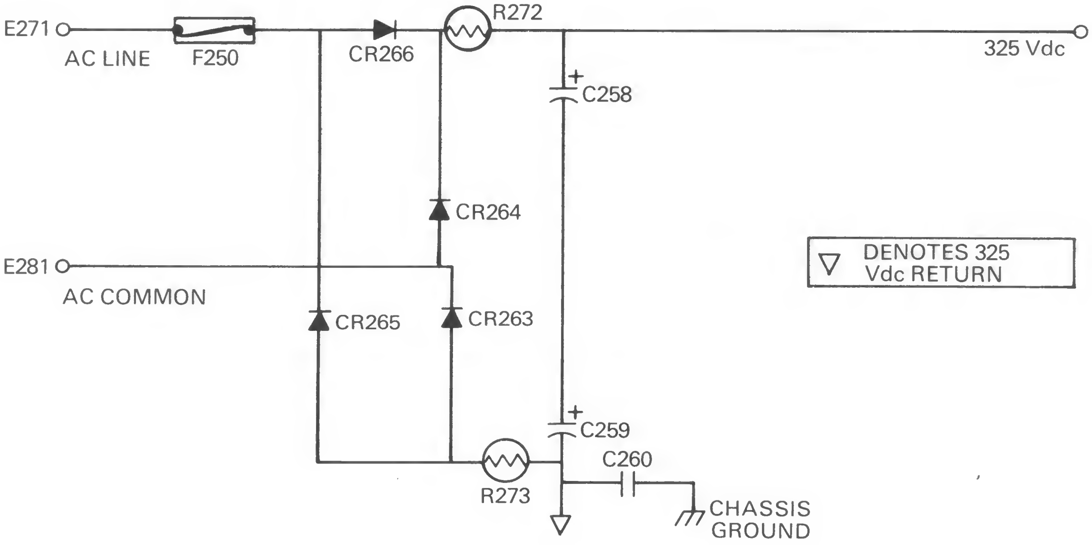


Figure 4-4. Full-Wave Bridge

4.2.2 Soft-Start Circuit

On earlier models (terminal electronics PWB part number 999947) a soft-start circuit is used. Later models (PWB part number 2208265) do not use a soft-start circuit.

During power-up, initial current surge is limited by resistor R271 in the soft-start circuit as shown in Figure 4-5. After a safe period, when capacitors C258 and C259 are charged, SCR Q255 fires and bypasses R271 for more efficient operation. Resistors R269 and R270 with capacitor C261 provide the RC time constant delay used to fire the soft-start SCR. R268 and C260 filter the voltage on the gate of Q255. CR262 provides a low-impedance path around R271 when C258 and C259 discharge. C263 provides transient protection to prevent false triggering of Q255.

4.2.3 Blocking Oscillator Circuit

The blocking oscillator circuit (drawing 999945 or 2208267, sheet 13) is a self-starting switching circuit which uses the primary winding of transformer T201 as a collector load. When the switching transistor is on, energy is stored in the primary winding of transformer T201. When the switching transistor goes off, the induced electromagnetic field in the primary collapses and couples energy into the secondary windings of the transformer.

Transistor Q250 controls the current being applied to the primary winding of T201. When Q250 is switched on, current passes through the primary winding of T201 and current sensing resistor R251. Transistor Q251 follows the voltage changes of R251 and applies a ramp voltage proportional to the current change through R251 to a summing point at R259.

The summing point receives the ramp voltage from Q251 and from the reference-sensing circuit connected to the secondary windings of T201. When the voltage at this summing point reaches approximately 0.6 volts, transistors Q252, Q253, and Q254 switch on which, in turn, switches off Q250. The current through the primary of T201 stops, and the induced field begins to collapse. The collapsing field couples energy to the secondary windings through flyback action. Q250 remains off until the voltage at the summing point allows transistor Q252 to switch off.

Two jumpers are provided (on terminal electronics PWB 999947) in the blocking oscillator circuit to assist in testing. The jumper between E264 and E265 connects the collector of Q250 to T201. The jumper between E262 and E263 connects the base of Q250 to the self-starting circuit R265.

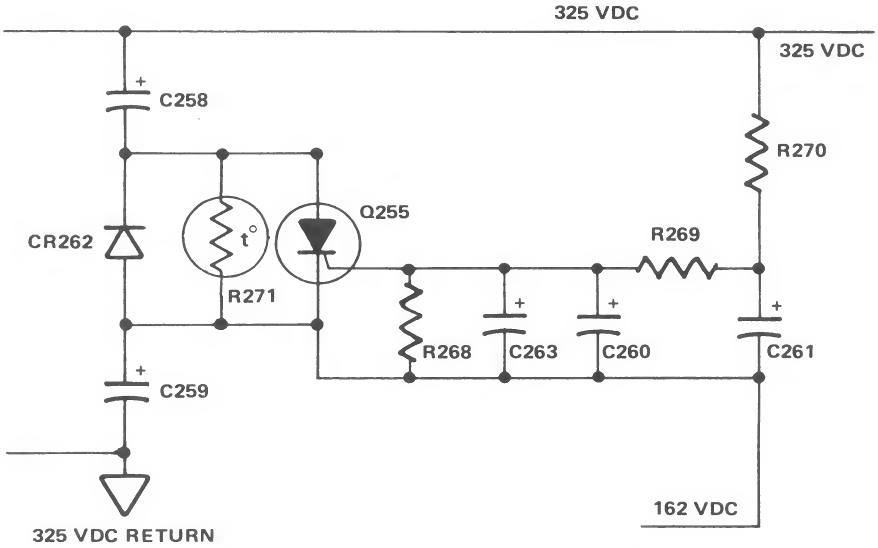


Figure 4-5. Soft-Start Circuit (Earlier Models Only)

4.2.4 Reference-Sensing Circuit

The 5 V winding rectified by CR205 (drawing 2208267, sheet 14) is used as the reference winding. Because of the tight coupling used in the secondary windings of T201, any load variations in the other secondaries will be reflected in the 5 V winding. The 5 V output is tapped off before fuse F200 and applied to pin 2 of operational amplifier (op-amp) U202.

The output of the 5 V winding is compared to a reference voltage, the output of the op-amp is high, and switching transistor Q250 continues to deliver full power into the primary winding. When the input at pin 2 exceeds the reference voltage, the output of the op-amp is optically coupled back to the summing point at Q252B, where it is combined with the ramp voltage to switch off transistor Q250.

4.2.5 Secondary Filtering and Regulation Circuits

Transformer T201 has four secondary windings which are used to produce the voltages required to drive the terminal. The windings produce 33 V, +5 V, and ±12 V (±16 V on terminal electronics PWB 999947 and terminals configured for the BPO). The +33 V winding is rectified by CR203 and then split to facilitate testing the motor driver and printhead circuits. The jumper from E205 to E206 connects +33 V to +33 VHD which applies +33 V to the ribbon motor drive through fuse F101 and to the printhead through F102. The jumper from E207 to E208 connects +33 V to +33 VMTR, which applies +33 V to the carriage motor drive and paper motor drive through fuse F103.

The output of the +5 V winding is rectified by CR205, filtered, and sensed by the reference-sensing circuit. The +5 V supply is split after fuse F200 to facilitate testing of the driver and logic circuits. The jumpers from E211 to E212 (and E234 to E235) connect +5 V to the logic circuits. The jumper from E213 to E214 connects +5 V to +5DVR for the motor driver circuits.

The 12 V secondary rectified by CR209 is filtered by C212 and protected by fuse F202; this produces the regulated +12 V supply for the terminal. The second 12 V winding is filtered by C211 and protected by fuse F201; this produces the −12 V supply for the terminal. (On terminal electronics PWB 999947 and BPO terminals, the ±16 V output is regulated by U205 and U206, and fuses F201 and F202 are omitted.)

4.2.6 Power-Good Circuit

The power-good circuit (PWRGOOD) monitors the power supply voltages and produces a logic output signal that enables terminal operation. If either of the power supply voltages (+5 or ±12) drops to less than 95 percent of its normal voltage output, transistor Q201 (drawing 2208267, sheet 14) switches on, sinking the PWRGOOD signal to ground. The loss of the PWRGOOD signal causes a RESET interrupt at the terminal processor CPU, disables all printer mechanism drive circuits by disabling the +5 VSW drive enable signal, and resets the Z80A counter-timer circuits (CTC), the Z80A SIO, the dot and keyboard latches, as well as the communications interface latches.

4.3 TERMINAL CONTROLLER SUBSYSTEM

The Model 820/825 KSR/RO terminal controller is a Z80A microprocessor. A simplified block diagram of the terminal controller subsystem is illustrated in Figure 4-6. The major components of the terminal controller subsystem are:

- Z80A (or equivalent) microprocessor
- System clock circuit
- Memory control logic
- Two Z80A counter-timer circuits (CTC)
- Memory

4.3.1 The Z80A Microprocessor

The Z80A microprocessor (TI Part No. 2210301-0001) is the 4 MHz version of the Z80 microprocessor. Several companies second source this CPU using different designations, but for simplicity the term Z80A is used in this manual to designate this family of microprocessors.

The Z80A is an 8-bit microprocessor with a tristate, bidirectional data bus and a 16-bit, tristate address bus, allowing access to up to 65 536 bytes (8-bit data words) of memory. The CPU, built

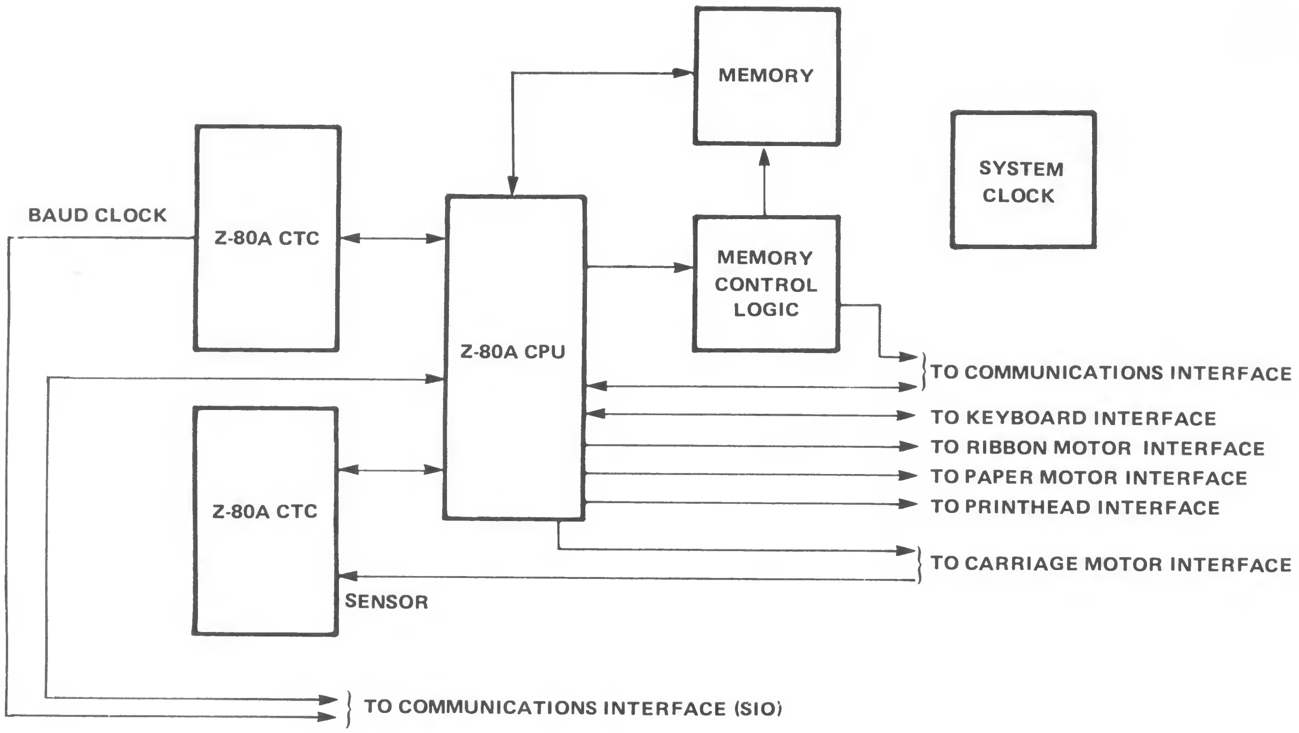


Figure 4-6. Terminal Controller Subsystem

using MOS LSI technology, requires only a regulated +5 V supply and ground for power, plus a single-phase clock of up to 4 MHz for system timing.

The Z80A is upwardly software compatible with the 8080A microprocessor, with an instruction set of 158 instructions, including the 78 of the 8080A. Onboard scratchpad memory is implemented in a manner similar to that of the 8080A, but in greater quantity. The Z80A contains 208 bits of read/write memory organized into eighteen 8-bit registers and four 16-bit registers, implemented in on-chip static RAM.

The Z80A, similar to the 8080A, uses a stack architecture for many internal operations, such as CALL, RETURN, and external operations performed within a program, such as saving registers while executing subroutines (PUSH, POP). A stack is also referred to as a ''last-in, first out (LIFO)'' buffer, or a ''pushdown array.''

The stack in the Z80A architecture (Figure 4-7) is implemented in external system RAM and referenced via the CPUs stack pointer (SP) register. The stack pointer points to a spot in contiguous RAM and is decremented when data (primarily addresses) is pushed onto the stack; the pointer is incremented when data is removed or popped off the stack. For example, if the SP is loaded with 9000 (hexadecimal) and a PUSH instruction is executed, the contents of the registers being pushed are placed at location 900016 and 8FFF16 (two 8-bit data words), and the new SP is now 8FFE16. The reverse occurs with a POP instruction. The Z80A CPU also uses the stack to store return addresses during interrupt service or execution of CALL instructions, and to return to the calling or interrupted program upon execution of a return-class instruction.

The Z80A CPU may be configured to any one of three modes of interrupt handling. Mode 0 is similar to the 8080A mode in which interrupting devices set an instruction on the data bus for execution by the CPU. Mode 1 causes a restart at address 003816 upon acknowledgment of the interrupt. Mode 2, the most powerful mode, and that used by the Model 820 terminals, enables indirect calls to any location in memory for execution of an interrupt-handler routine. Included in every mode is a nonmaskable interrupt which is actuated via the NMI— pin of the CPU. It causes a restart at location 006616, but is only used in the Model 820/825 Terminals for internal test purposes. All modes of interrupt are selected via software instructions.

4.3.2 Z80A CPU Timing

The Z80A CPU executes instructions by performing a small set of basic internal operations unique for each instruction. Those operations most applicable to the Model 820/825 Terminals include:

- Instruction op code fetch (M1 cycle) used to fetch instructions from ROM
- Memory data read or write cycles, used to read from RAM, option ROM, dot ROM, PROMs, I/O devices
- I/O read or write cycle, used to read or write from I/O devices
- Interrupt request/acknowledge cycle, used to handle interrupts

Timing diagrams for these cycles (with and without wait state as applicable) are shown in Figures 4-8 through 4-13. A detailed explanation can be found in a Z80A CPU manual.

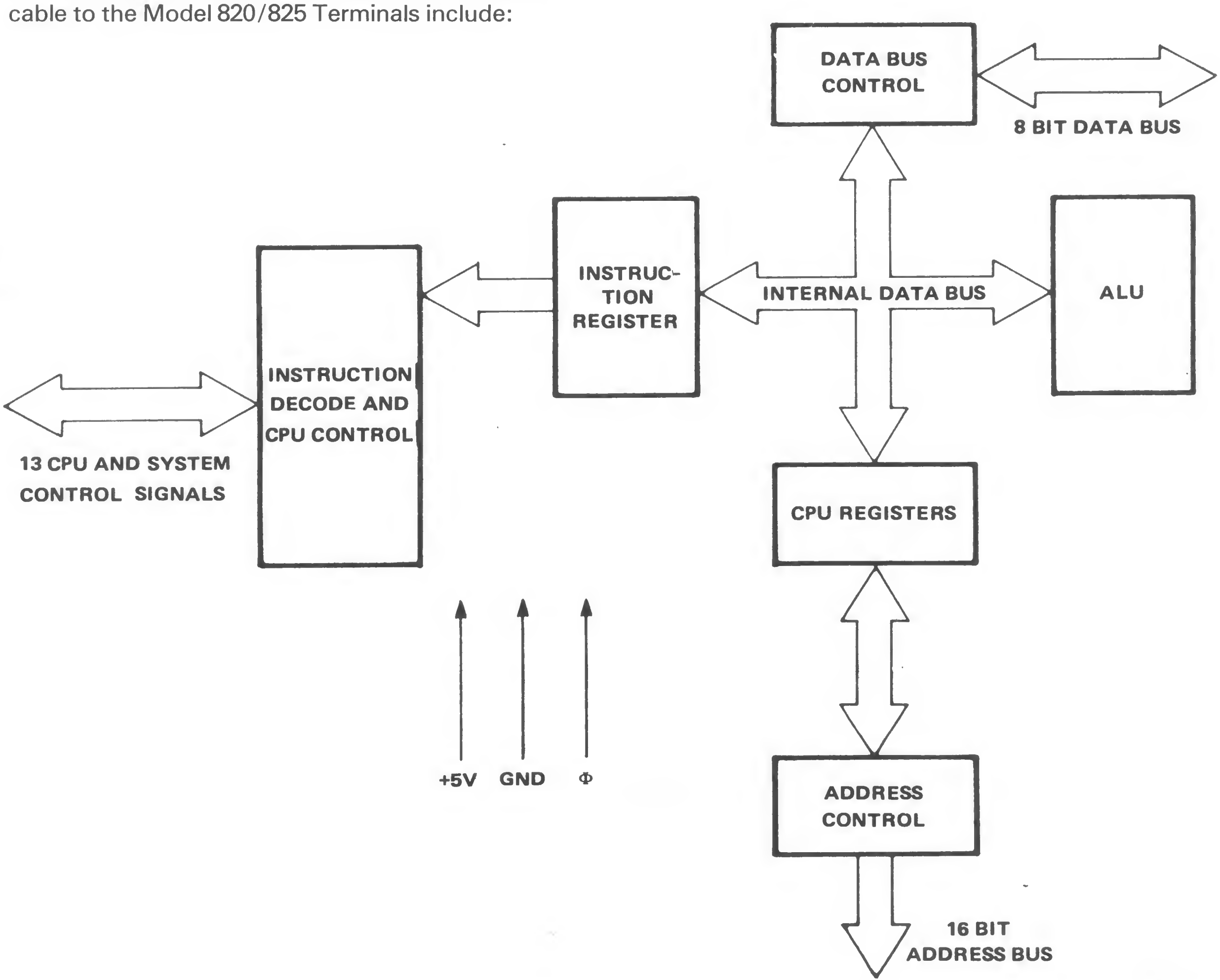


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Figure 4-7. Z80A Microprocessor Architecture

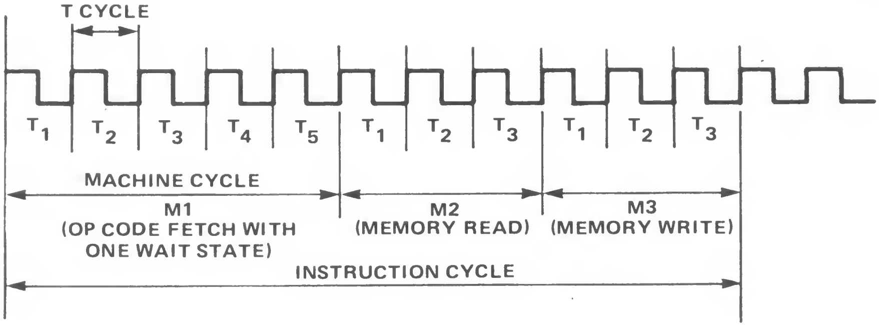

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Figure 4-8. Basic CPU Timing Example

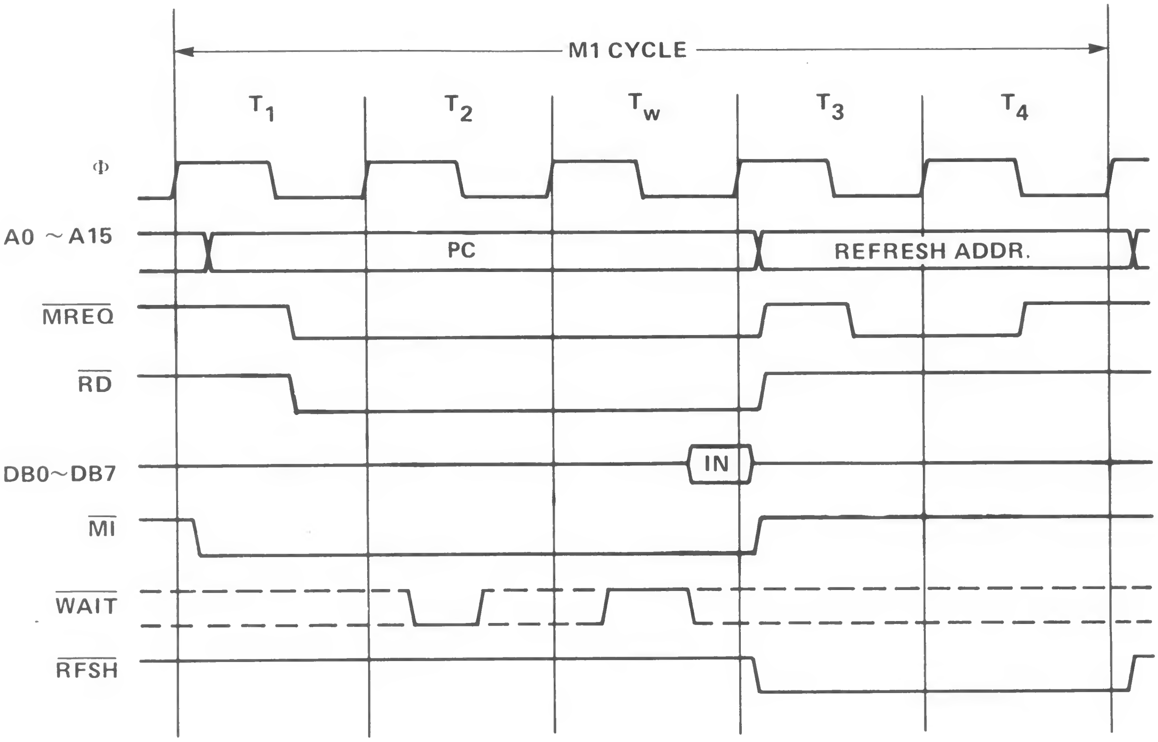

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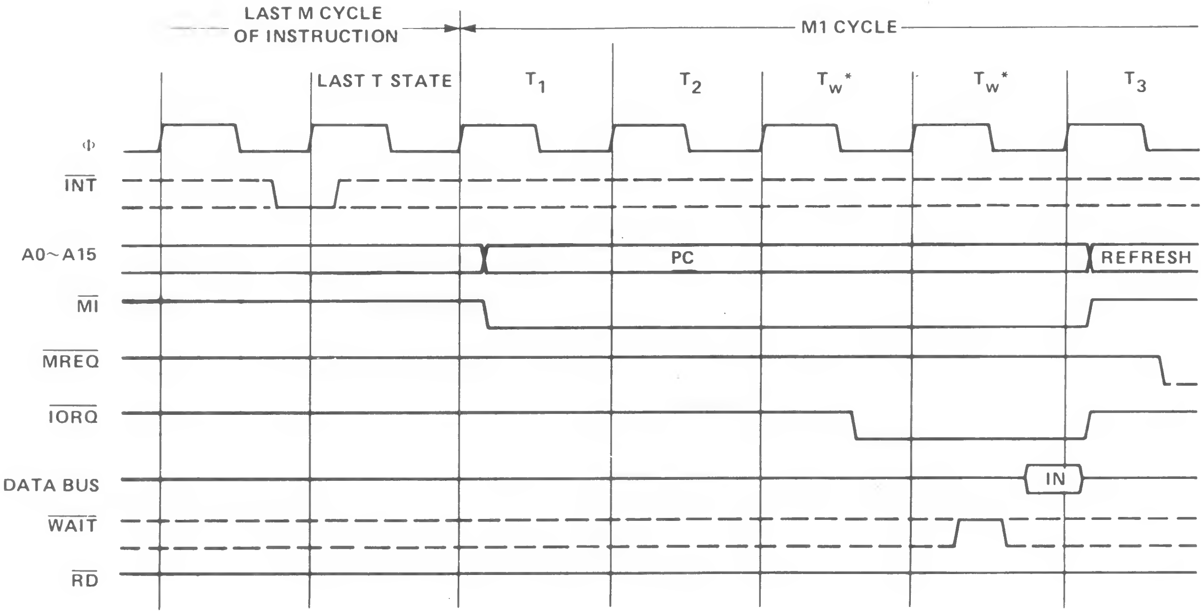
Figure 4-9. Instruction Op Code Fetch With One Wait State



NOTE: The * indicates that these wait states are automatically insert by the Z-80A CPU.

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Figure 4-10. Interrupt Request/Acknowledge Cycle

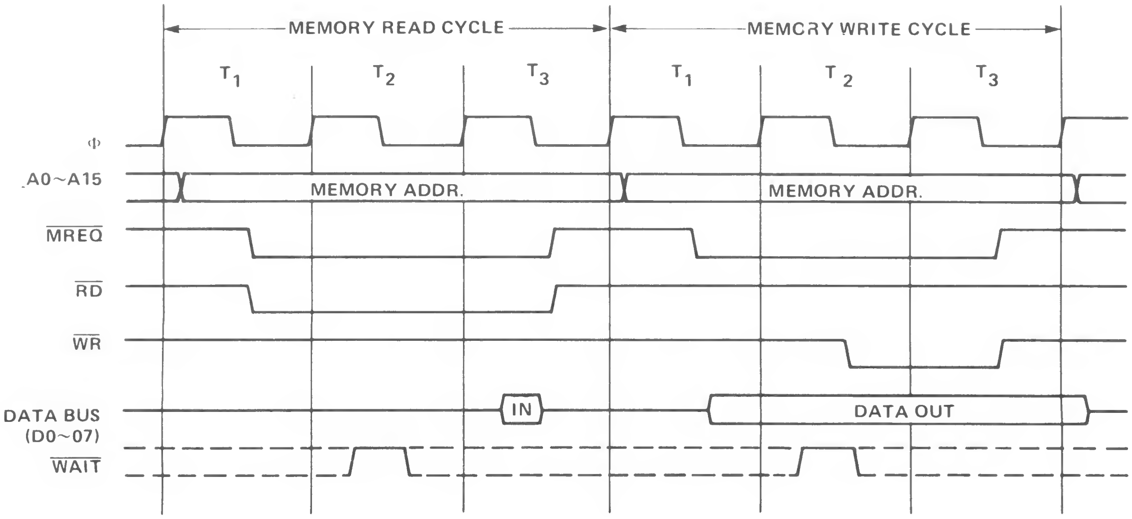

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Figure 4-11. Memory Read or Write Cycles

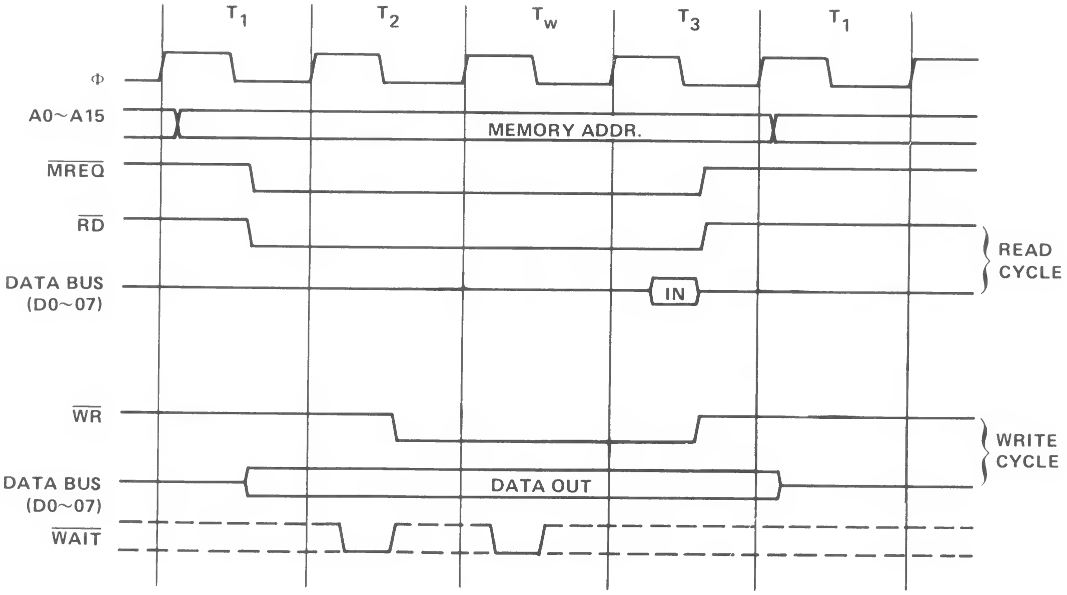

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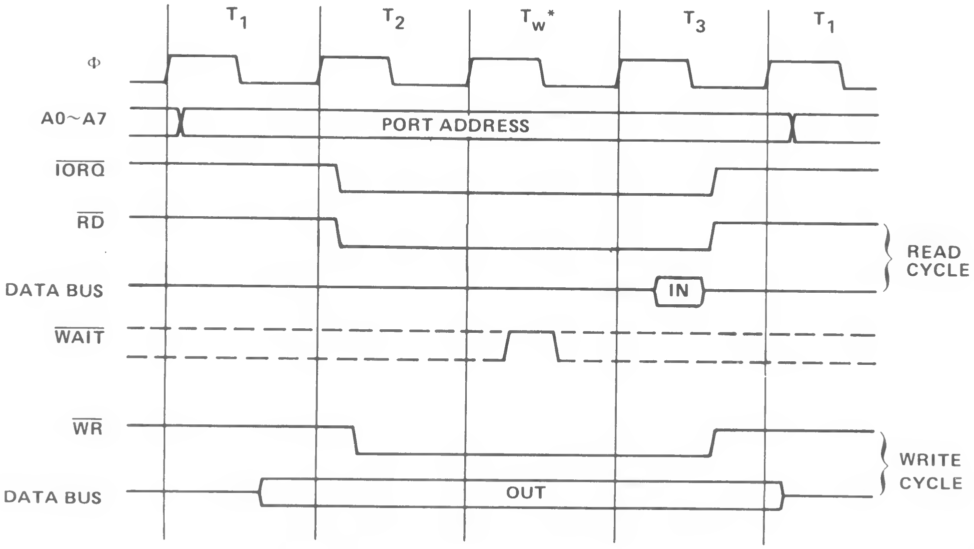
Figure 4-12. Memory Read or Write Cycles With One Wait State



2206552-31

Figure 4-13. Input or Output Cycles

4.3.3 Terminal Controller Memory

The memory used by the terminal controller subsystem is composed of:

- Read-only memory (ROM)
- CMOS random-access memory (CMOS RAM)
- Random-access memory (RAM)
- Programmable read-only memory (PROM)

The terminal controller memory schematics are located in Section 7, drawing 999945 or 2208267, sheets 5 and 6. The references in the following paragraphs apply to these schematics.

4.3.3.1 Read-Only Memory. The control programs and built-in testing functions for the standard Model 820/825 KSR and RO Terminals are contained in 16K bytes of read-only memory (ROM) located on the terminal electronics PWB (main board). The terminal controller ROM consists of two 8K by 8-bit TMS4764-compatible devices installed in sockets XU9 and XU10. Data is exchanged with the ROMs via the Z80A bidirectional data bus. The ROMs are enabled by the memory control logic (refer to paragraph 4.3.4) and are addressed via the Z80A address lines. An optional TMS4732-compatible ROM (socket XU12) is provided with the device/forms control (DFC) option.

4.3.3.2 Nonvolatile Memory. The Model 820/825 Terminals use two complementary metal oxide semiconductors (CMOS) random-access memories (RAMs) and a battery to provide nonvolatile storage of configuration and format parameters. The CMOS RAMs contain 256 bytes (each one is 4 bits wide) of memory and are located on the terminal electronics PWB (U4 and U5). The CMOS RAMs are enabled by the memory control logic. When power to the terminal is switched off, a +3 volt, lithium battery provides power to the CMOS RAMs (refer to Section 5 for information on battery installation and replacement).

4.3.3.3 Random-Access Memory. The terminal electronics PWB has 2048 (2K) bytes of RAM for temporary storage of data and stack manipulation by the Z80A. The terminal processor RAM consists of one 2K by 8-bit RAM device in socket XU3. The RAM is enabled by the memory control logic. Later model terminals accept an optional 2K byte buffer in socket XU2 to extend storage to 4098 bytes of RAM. (Some earlier terminal electronics PWB assemblies used two 1K by 8-bit RAM devices.)

4.3.3.4 Programmable Read-Only Memory (Optional). The terminal electronics PWB provides two programmable read-only memory (PROM) sockets, XU23 and XU24, which are used for optional character sets and fixed configurations. Refer to Section 3 for details on these options.

Figure 4-14 illustrates the Model 820/825 memory map.

4.3.4 Memory Control Logic

The memory control logic is the control interface between the Z80A CPU and the various memory circuits and memory-mapped I/O circuits in the Model 820/825 KSR and RO Terminals. This interfacing is accomplished via the use of select signals which selectively enable the device to be accessed. Figure 4-15 shows the memory-mapped I/O.

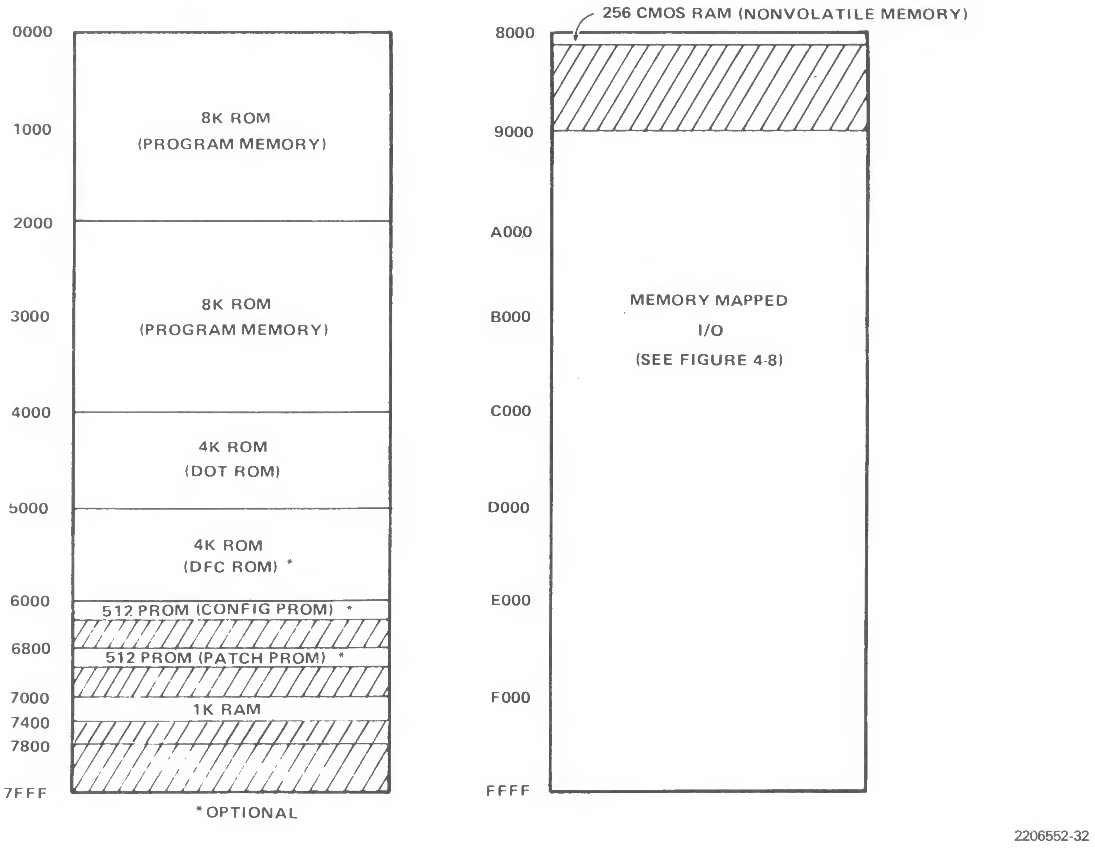


Figure 4-14. Memory Map

The select signals are generated in a decoding network comprised of a 32 X 8-bit PROM (U13, drawings 999945 and 2208267, sheet 4) and two 74LS 138 one-of-eight decoder/demultiplexers (U25 and U26, drawing 999945 or 2208267, sheet 4). The network decodes the five most significant address lines of the Z80A CPU (A15-A11) and two control signals from the CPU (MREQ and WR) to produce the enable signals for four ROMs, two RAMs, the composite CMOS RAM, two optional PROMs, seven I/O circuits, and the wait-state generator.

Drawings 999945 and 2208267, sheet 4, shows the exact routing of these signals. Other memory-mapped I/O, specifically the Z80A CTCs and SIO, are powerful enough to do their own address decoding, so none is needed in this logic for those three devices. The address table for the Z80A CTCs and DART is shown in Figure 4-16.

4.3.5 System Clock

Theory of operation differs somewhat in the two versions of the terminal electronics PWBs used on the Model 820/825 Terminals. Their differences are described below. Determine with which PWB your terminal is equipped to be certain.

4.3.5.1 Terminal Electronics PWB 2208265 System Clock. Terminal electronics PWB 2208265 employs an 8-MHz crystal-controlled oscillator to provide the clock pulses for the Model 820/825 KSR and RO Terminals. The output of the system clock (OSC) is divided by two by device U40 and is buffered by a 74LS367. The new signal, CLK—, is routed to the encoder circuit of the carriage motor subsystem, to the flip-flop (U30) which divides the clock by two for use in generating the baud clock, to the wait-state generator flip-flops (U30A and U40A), and to U29, a 74LS367 which buffers the clock before the bipolar driver/inverter that generates CLKMOS.

MEMORY MAPPED I/O

A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	A0	D7	D6	D5	D4	D3	D2	D1	D0
1	0	0	1	0	X	X	X	X	X	X	X	X	X	X	X	KBD7	KBD6	KBD5	KBD4	KBD3	KBD2	KBD1	KBD0
KB COLUMNS INPUTS																							
1	0	0	1	1	X	X	X	X	X	X	X	X	X	X	X	DIRECT	STLSFG	RIBREV	PAPOUT		SCARDET	RI	DSR
BITS INPUTS																							
1	0	1	0	X	X	X	X	X	X	X	X	X	X	X	X	XMIT R7	ALT R6	CARRIER R5	R4	(MSB) DATA 0 R3	DATA 1 R2	DATA 2 R1	(LSB) DATA 3 R0
KB ROW OUTPUT (LSB)																							
1	0	1	1	X	X	X	X	X	X	X	X	X	X	X	X	RBA	RBB	RBC	RBD	(MSB) STB 0 R11	R10 STB 1 R10	(LSB) STB 2 R9	R8
KB ROW OUTPUT (MSB)																							
1	1	0	0	X	X	X	X	X	X	X	X	X	X	X	X	DOT 8	DOT 7	DOT 6	DOT 5	DOT 4	DOT 3	DOT 2	DOT 1
DOTS OUTPUT																							
MISC I/O																							
1	1	1	0	X	X	X	X	X	X	X	X	X	0	0	0	X	X	X	X	X	X	X	BELL ON = 1
1	1	1	0	X	X	X	X	X	X	X	X	X	0	0	1	X	X	X	X	X	X	X	COCHR 1 = COMP
1	1	1	0	X	X	X	X	X	X	X	X	X	0	1	0	X	X	X	X	X	X	X	LOOPBACK = 1
1	1	1	0	X	X	X	X	X	X	X	X	X	0	1	1	X	X	X	X	X	X	X	SRTS
1	1	1	0	X	X	X	X	X	X	X	X	X	1	0	0	X	X	X	X	X	X	X	RATE
1	1	1	0	X	X	X	X	X	X	X	X	X	1	0	1	X	X	X	X	X	X	X	X1
1	1	1	0	X	X	X	X	X	X	X	X	X	1	1	0	X	X	X	X	X	X	X	X2
1	1	1	0	X	X	X	X	X	X	X	X	X	1	1	1	X	X	X	X	X	X	X	STPTFG
1	1	1	1	X	X	X	X	X	X	X	X	X	0	0	0	X	X	X	X	X	X	X	CMFWD1=FWD
1	1	1	1	X	X	X	X	X	X	X	X	X	0	0	1	X	X	X	X	X	X	X	ACC1 1=ON
1	1	1	1	X	X	X	X	X	X	X	X	X	0	1	0	X	X	X	X	X	X	X	ACC2 1=ON
1	1	1	1	X	X	X	X	X	X	X	X	X	0	1	1	X	X	X	X	X	X	X	PDMCC1=HIGH
1	1	1	1	X	X	X	X	X	X	X	X	X	1	0	0	X	X	X	X	X	X	X	POA
1	1	1	1	X	X	X	X	X	X	X	X	X	1	0	1	X	X	X	X	X	X	X	POB
1	1	1	1	X	X	X	X	X	X	X	X	X	1	1	0	X	X	X	X	X	X	X	POC
1	1	1	1	X	X	X	X	X	X	X	X	X	1	1	1	X	X	X	X	X	X	X	POD

X's Denote Don't Cares

Figure 4-15. Memory-Mapped I/O

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A15	A14	A13	A12	A11	A10	A9	A8	A7	A6	A5	A4	A3	A2	A1	A0	Description	Device
x	x	x	x	x	x	x	x	0	1	1	1	x	x	0	0	SENSOR TIMER (LSB)	CTC2
x	x	x	x	x	x	x	x	0	1	1	1	x	x	0	1	SENSOR TIMER (MSB)	CTC2
x	x	x	x	x	x	x	x	0	1	1	1	x	x	1	0	BAUD RATE CLOCK	CTC2
x	x	x	x	x	x	x	x	0	1	1	1	x	x	1	1	4 MS TIMER	CTC2
x	x	x	x	x	x	x	x	1	0	1	1	x	x	0	0	SENSOR INTERRUPT	CTC1
x	x	x	x	x	x	x	x	1	0	1	1	x	x	0	1	PRINT PULSE TIMER	CTC1
x	x	x	x	x	x	x	x	1	0	1	1	x	x	1	0	PAPER MOTOR TIMER	CTC1
x	x	x	x	x	x	x	x	1	0	1	1	x	x	1	1	SPEED REGULATION TIMER	CTC1
x	x	x	x	x	x	x	x	1	1	0	1	x	x	0	0	CHANNEL A DATA	SIO
x	x	x	x	x	x	x	x	1	1	0	1	x	x	0	1	CHANNEL A CONTROL	SIO
x	x		x	x	x	x	x	1	1	0	1	x	x	1	0	CHANNEL B DATA	SIO
x	x	x	x	x	x	x	x	1	1	0	1	x	x	1	1	CHANNEL B CONTROL	SIO

---

x denotes "don't care"

2206552-34

Figure 4-16. I/O Devices

4.3.5.2 Terminal Electronics PWB 999947 System Clock. Terminal electronics PWB 999947 employs a 4-MHz crystal-controlled oscillator to provide the clock pulses for the Model 820/825 KSR and RO Terminals. The output of the system clock (OSC) is buffered and inverted by device U29, a 74LS244. The new signal, CLK, is routed to the encoder circuit of the carriage motor subsystem, to the flip-flop (U30) which divides the clock by two for use in generating the baud clock, to the wait-state generator flip-flops (U30A and U40A), and to a bipolar driver/inverter circuit which generates the signal CLKMOS. CLKMOS is the Z80A CPU clock signal as well as the master clock signal for the two Z80A CTC circuits and the Z80A SIO.

4.3.6 The Z80A CTC Counter Timer Circuit

The Models 820/825 KSR/RO Terminals use two Z80A CTCs to provide miscellaneous timing functions. The Z80A CTC is the 4 MHz version of the Z80 CTC, both being four-channel independent timer/counters capable of generating interrupts upon a count down to zero in any of the four individual channel registers.

The Model 820/825 KSR/RO Terminals use these two Z80A CTCs (drawing 999945 or 2208267, sheet 7, U21 and U22) to provide sensor pulse counting (as explained in paragraph 4.8.1), to reset the printed latches (as explained in subsection 4.9), to generate a general-purpose interrupt every 4 milliseconds, to generate the baud rate clock for the Z80A SIO (see paragraph 4.5.3), to time paper movement, to regulate carriage speed, and to measure the length of time between sensor pulses.

4.4 OPERATOR INTERFACE

The upper PWB of the Model 820/825 KSR Terminal contains the operator interface which consists of the alphanumeric keyboard, the operator control panel, the terminal status display block, terminal indicators, optional numeric keyboard, and associated support circuits.

The upper PWB of the RO terminal is much the same except that instead of an alphanumeric keyboard, there is a operator keypad for use in configuration and testing. No numeric keyboard option is available for RO terminal.

The operator interface components are connected to the terminal controller processor through the keyboard interface (drawing 999945 or 2208267, sheets 7 and 8). The keyboard scan, matrix, terminal status display and indicators, and the interface logic are described in the following paragraphs.

4.4.1 Keyboard/Switch Scan

The keyboard is scanned once every 4 ms. During each scan the keyboard matrix is read, the terminal indicators are updated, and one of the seven-segment LED displays on the operator panel is updated. Three keyboard scans are required to completely update the keyboard displays.

At the beginning of the keyboard matrix scan, the terminal controller loads a digital word into latches U36 and U37 in the interface logic. This word places a ZERO on row zero (R0) and ONE on rows one (R1) through eleven (R11). Therefore, at the beginning of the scan, only row R0 is enabled. After reading the column outputs, the data is right-shifted and rewritten to the latch, meaning that only R1 is now enabled. The columns are read again. The data is right-shifted every time the columns are read until all of the rows have been enabled once.

4.4.2 Keyboard Matrix

The keyboard matrix encodes keyswitch activation information to be read by the terminal controller. The matrix for the Model 820/825 KSR Terminal keyboard consists of 12 rows and 8 columns (drawing 999710, sheet 2). The matrix for the Model 820/825 Terminal keyboard consists of 12 rows and 4 columns (drawing 999951, sheet 2). The rows are enabled (low) one at a time by the terminal controller. When a key connected to an enabled row is depressed, current flows through a 6.8k ohm pullup resistor and through the keyswitch. Here current flow is slightly different, depending on whether the keyboard is an RO model or a KSR model as delineated in the following paragraphs.

4.4.2.1 KSR Keyboard. Current flow continues from the keyswitch through a diode (connected in series with every switch) and into the enabled row (see Figure 4-17). While current is flowing, the column output will be low. The diode prevents current flow from an unenabled row to an enabled row when two switches on the same column are actuated.

4.4.2.2 RO Keyboard. Current flow continues from the keyswitch differently, depending on whether the switch is located on the operator keypad or on the operator control panel section of the keyboard. If the pressed switch is in the operator control section, current flow proceeds exactly as in the KSR keyboard (see subparagraph 4.4.2.1). Otherwise, current proceeding through the keyswitch enters the enabled row immediately, but is then passed through a diode and then to the interface. The diode in this case prevents current flow from an unenabled row to an enabled row as in the KSR keyboard, but does not allow for n-key rollover (see Figure 4-18).

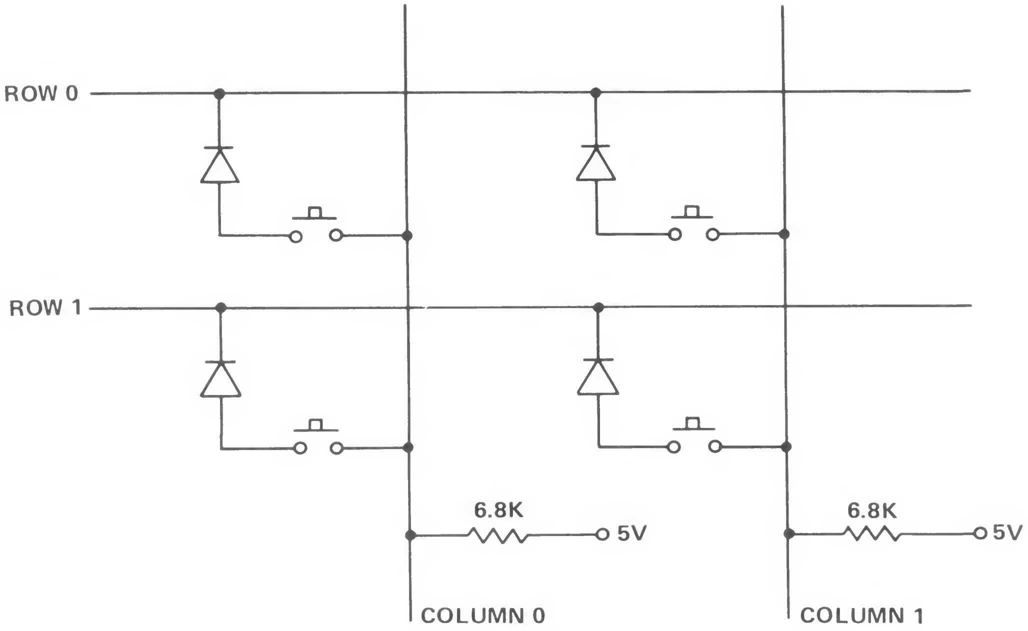

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Figure 4-17. Keyboard Matrix Simplified Diagram (Model 820/825 KSR)

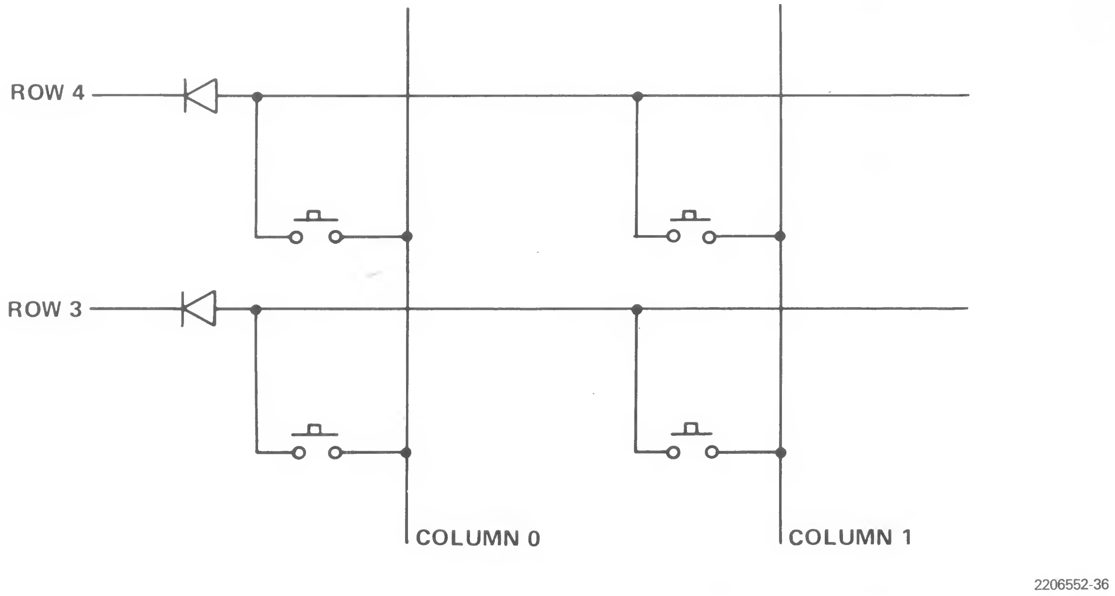

Figure 4-18. Keyboard Matrix Simplified Diagram (Model 820/825 RO)

4.4.2.3 Column Data. The output of each matrix column is fed to a voltage comparator (KSR keyboard: U2, U3, drawing 999710, sheet 1; RO keyboard: U2, drawing 999951, sheet 1). The reference voltage for the comparator is taken from a voltage divider, and should measure approximately 1.74 V. The output of the voltage comparator is routed through J1 to the keyboard interface logic on the Model 820/825 terminal electronics PWB. The row inputs are buffered through two hex bus drivers (U7, U8, drawing 999710 [KSR]; drawing 999951 [RO], sheet 1).

4.4.3 Terminal Status Display and Indicators

The terminal status display (TSD) is controlled by rows R0 through R3 and R9 through R11. Outputs R9 through R11 strobe the seven-segment LED displays by forward-biasing transistors Q1, Q2, and Q3. These three transistors supply the current to the common-anode segment LED diodes of the display. The display is driven by a BCD-to-seven-segment decoder/driver (U1, drawing 999710 [KSR] or drawing 999951 [R0], sheet 1). The four inputs (A-D) for the decoder/driver are R0 through R3, respectively (see Figure 4-19). The other terminal indicators are controlled by R5 through R7 and are activated by enabling their respective rows (low).

4.4.4 Keyboard Interface

All references in this subsection apply to drawing 999945 or 2208267, sheets 7 and 8. The keyboard interface connects the data bus of the Z80A CPU to the row inputs and column outputs of the keyboard. The keyboard interface also connects the data bus to the ribbon motor drive inputs. The data bus is an 8-bit bidirectional bus. The terminal electronics PWB, which includes the keyboard interface logic, is connected to the keyboard PWB by a 25-conductor ribbon cable (the center conductor is not used). A simplified block diagram of the keyboard PWB is shown in Figure 4-20.

The row pulses are clocked out of latches U36 and U37 upon transitions of the signals 103— and 102—, respectively, provided by the memory interface logic. The column data is latched into U34 by the signal 106—. U36 also contains the ribbon motor latches, which are clocked by 103— along with the row pulses for rows R9 through R11.

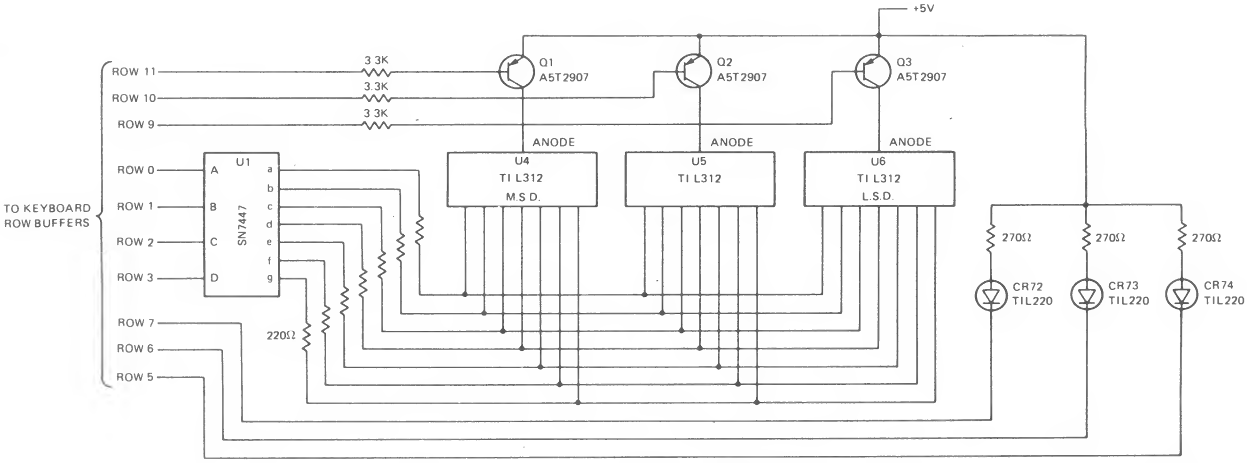

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Figure 4-19. Terminal Displays, Simplified Diagram

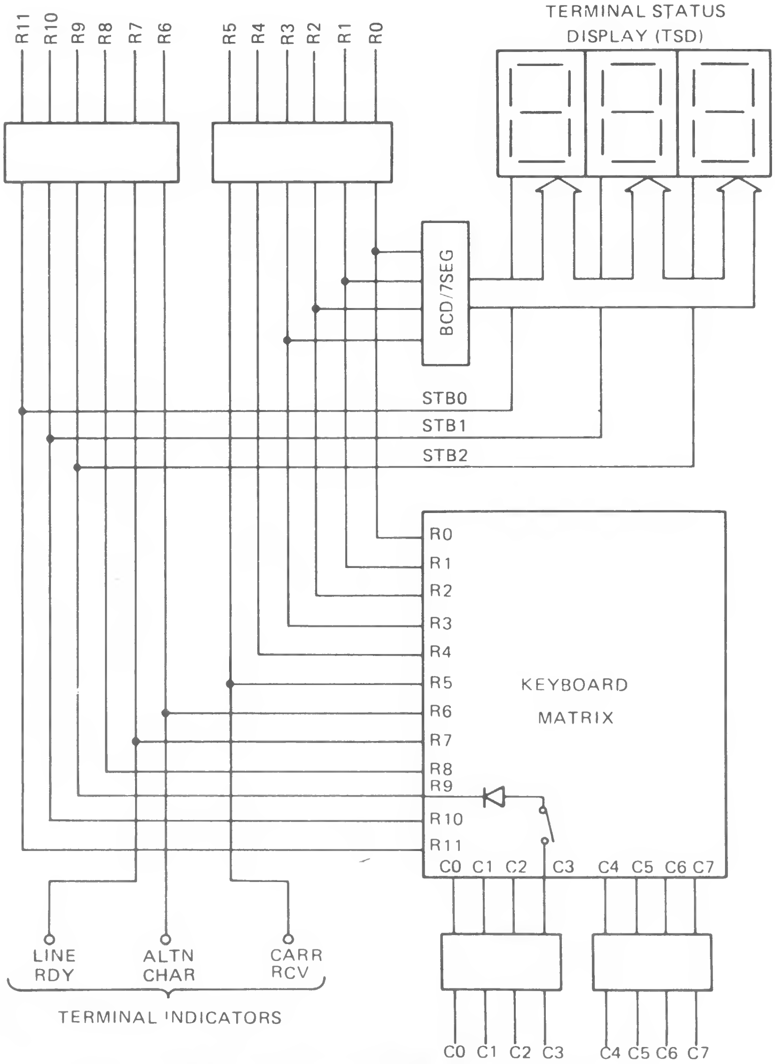

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Figure 4-20. Keyboard PWB Simplified Diagram

4.5 COMMUNICATIONS INTERFACE

The communications interface, controlled by the Z80A CPU, utilizes a Z80A SIO (serial I/O controller), as well as addressable input and output latches. All communications interface input signals are converted from EIA/CCITT levels to TTL levels as described in EIA standard RS-232-C. The communications interface logic is shown on drawing 999945 or 2208267, sheet 7, and discussed in Section 3.

4.5.1 Interface Signals

The Model 820/825 KSR and RO Terminals support the communication signals described in subsection 3.4 of this manual. All communications interface signals are routed from the 25-pin connector mounted on the rear of the terminal electronics PWB by the internal EIA cable assembly (drawing 999972). The signals in this cable are designated by both the EIA and CCITT circuit names. For example, the received data signal is designated BB/104.

4.5.2 Signal Level Conversion

All inputs from J3 are converted from EIA/CCITT levels to TTL logic levels by the logic elements in location U43 and U44. All outputs to J3 are converted from TTL logic levels to EIA/CCITT levels by the logic elements in locations U42 and U41.

4.5.3 Serial I/O Controller

The Z80A SIO (serial I/O) Controller is a programmable, dual-channel device which provides formatting of data for serial data communication as well as some EIA RS-232-C line control. Its basic function is that of a serial-to-parallel, parallel-to-serial converter/controller, but it is adaptable enough to handle almost any serial data task.

The Z80A SIO is capable of handling both synchronous and asynchronous protocols, but in the Model 820/825 KSR/RO Terminals it functions only in the asynchronous mode. It is capable of generating and testing parity, interrupting the Z80A CPU for a variety of purposes, and transmitting and receiving independently. An internal daisy chain interrupt structure permits either vectored interrupts or a polled interrupt handler. The device requires the same +5V and ground power supply as the Z80A CPU, plus a system clock and a baud-rate clock for both the receiver and transmitter of each channel.

The Model 820/825 KSR and RO Terminals use only one channel of the Z80A SIO; therefore, some of the devices may be marked Z80A SIO/9, indicating only one functional channel. As stated before, only the asynchronous mode is used. The 16X clock mode is used for both the transmitted and received data clocks, and both of these signals are tied together for a common data rate for transmitted and received data. This baud clock is generated by one of the Z80A CTCs.

The Z80A SIO is configured to generate an interrupt to the Z80A CPU upon receipt of a character or upon emptying its transmit buffer. It does not generate interrupts upon transitions of control signals (CTSA—, DCDA—). The Z80A SIO (drawing 999945 or 2208267, sheet 7) is addressed as memory-mapped I/O. Control registers are written to and read from the control addresses for channels A and B, and data is input or output through the data address for channel A (see Figure 4-16). The address for channel B data is not used.

The Z80A SIO provides the interface signals request to send (RTS) and data terminal ready (DTR), and is polled to determine the status of data carrier detect (DCD) and clear to send (CTS). All other interface signals are under direct control of the Z80A CPU terminal controller, utilizing the input buffer at U33 and the output latch at U18. The character structure of transmitted and received data is shown in Figure 4-21.

4.5.4 Current-Loop (TTY) Interface (Optional)

An optional 20-mA current-loop interface is available for the Model 820/825 KSR and RO Terminals. If installed, the current-loop PWB is situated in the option slot located in the keyboard assembly beneath the keyboard PWB. If the option is to be used, the terminal should be configured to code 16.

The current-loop interface communicates to a compatible host via four lines: RCVCURIN (received current in), RCVCURO (received current out), TXDCURIN (transmitted current in) and TXDCURO (transmitted current out). A host system may connect to these four lines via a nine-pin receptacle located just above the EIA RS-232-C connector on the back of the Model 820/825 Terminals. Signals on these lines are cabled immediately to the current-loop PWB.

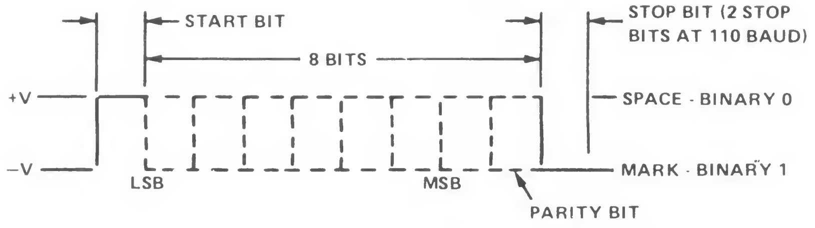

Figure 4-21. Asynchronous Data Format

The current-loop interface must also interface with the Model 820 Terminal Electronics PWB in order to receive and transmit data and commands. This is accomplished via the EIA connector and cable assembly in conjunction with a shorting plug which must be inserted in the connector. This allows data to flow from the processor, through the communications interface, through the cable assembly, to the EIA RS-232C connector assembly, through another cable, to the current-loop interface, back through a four- wire cable, to the optional nine-pin connector in the transmitted data path. Data flow is the reverse for received data.

The translation from serial EIA RS-232-C data to current pulses is accomplished via an optical coupling network and current amplifier; similarly, received current pulses are translated to serial data via an optical coupling network and a line driver. See schematic 2206530 for more detail.

4.6 RIBBON DRIVE SUBSYSTEM

The ribbon drive subsystem consists of the ribbon motor drive and direction circuits.

4.6.1 Ribbon Motor Drive

The terminal processor (the Z80A CPU) also controls the speed and direction of the ribbon drive motor. The ribbon drive motor is a four-phase pulse-modulated device operated in a stepping motor, unipolar, single-phase, voltage-switched mode. The motor steps each time a different phase winding is energized. The ribbon motor drive circuit (drawing 999945 or 2208267, sheet 11) receives the inputs to the phase windings, ROA — ROD, from a latch (U36) connected to the buffered data bus lines of the Z80A.

Clockwise rotation of the motor is induced by the following sequence:

$$T_{cw} = \text{ROA ROB ROC ROD ROA}$$

Counterclockwise rotation is obtained by the following sequence:

$$T_{ccw} = \text{ROA ROD ROC ROB ROA}$$

Each motor phase is switched between +33V and ground using a four-stage monolithic Darlington amplifier. For example, motor detent at RPHSA is achieved with ROA at a logic ONE. Current is sourced to the base of the Darlington at input pin 6. The emitter-to-base (VBE) of the Darlington clamps at approximately 1.5 V.

When saturated, the Darlington switch clamps the output (pin 7) to approximately 1 V. When logic input ROA is returned to a logic ZERO, the Darlington is switched off and inductive flyback diode is clamped at approximately 1 V above the supply voltage. The magnetic detent maintains the rotor at RPHSA detent until one of the phases is energized.

4.6.2 Ribbon Motor Direction

Ribbon motor direction is determined by the order in which the phase windings are energized. The ribbon mounted on the ribbon drive continues to move in one direction until the ribbon supply reel is almost empty, at which time an eyelet in the ribbon actuates the ribbon reverse switch (RIBREVSW) located on the ribbon drive deck.

When the switch is actuated, a signal is applied to a Schmitt trigger (drawing 999945 or 2208267, sheet 7) which is buffered by U33 and polled by the Z80A CPU. When the software detects RIBREVSW switch actuation, it reverses the order in which the phase windings of the ribbon motor are energized, and the motor reverses direction.

4.7 PAPER DRIVE SUBSYSTEM

The paper drive subsystem consists of the paper motor driver and paper-out detection circuits.

4.7.1 Paper Motor Driver Circuit

Paper motion, like almost all other Model 820/825 KSR and RO Terminal functions, is controlled directly by the CPU (via an intermediate latch). The paper motor is a four-phase, permanent magnet stepping motor. The speed of the motor is determined by the speed at which the phase signal input (POA-POD) from the CPU causes the motor to step. Motor direction is determined by the order in which the motor phase windings are enabled. Each eight steps of the motor cause the paper (form) to advance (or reverse) one line in 6-lpi mode; six steps cause the paper (form) to advance (or reverse) one line in 8-lpi mode.

The phases are enabled in pairs for stepping motion. When a phase line goes high, it switches on the appropriate transistor which supplies current to the selected phase winding in the motor. The current returns to the motor through pins 1 through 4 of J104 and returns through pins 1, 3, 4, and 5 of J106 (schematic 999945 or 2208267, sheet 10). For example, phase A and phase B are both on; after a period of time determined by the terminal controller, phase A is switched off and phase C is switched on. The motor rotates one step at that time. When phase B is switched off, phase D is switched on, producing another motor step.

When the motor is not stepping, a detent or holding torque is required to lock the motor at the position at which it stops. The detent signal is enabled by the paper drive motor current control (PDMCC) line from latch U6, which is set by the Z80A CPU. By applying a low current to the two-phase windings of the stepper motor (enabled by the phase signal input from the printer controller), the stepper motor is electrically locked into the last stepped position. When the PDMCC line is disabled, the current through the selected phase windings returns to the higher stepping level, and the stepping motor begins to step when the phase signals begin to change.

The paper motor drive operates as a current-controlled, switching mode regulator in an integrated choke circuit configuration. The circuit consists of a current-sensing comparator U113; motor phase selector Q116, Q114, Q117, or Q115; and a power switch Q113. When PDMCC is low, a detent motor current is established; when PDMCC is high, the motor current is increased to a level sufficient to develop motor torque to meet the worst-case friction torque. Clockwise rotation is induced by the following sequence (based on single-phase drive):

$$T_{cw} = \text{POA POB POC POD POA}$$

Counterclockwise rotation is induced by the following sequence:

$$T_{ccw} = \text{POA POD POC POB POA}$$

For example, after power becomes good the +5VSW signal goes high and one or more motor phases can be selected. If POA is high, the Darlington transistor Q116 is switched on, which switches on transistor Q119, causing Q113 to switch on and saturate. This causes current to be input to motor windings PDRV and out PPHSA, where it is sunk by transistor Q116.

When sufficient motor current is flowing, the voltage developed across resistor R133 causes the comparator to change states, causing U113-7 to go low. This action switches off Q119 which removes the base drive from Q113. Motor current now flows from the anode of CR116, through PDRV, through PPHSA, through Q116 and sensing resistor R133. The circuit exhibits a long recovery time in this mode. As the current flowing through R133 decays, the voltage drop across R133 decreases until, eventually, the comparator returns to the original state, permitting U113-7 to go high, which switches on Q119 and Q113.

The loop continues operating in a self-oscillating, chopping mode as long as one of the phase-select inputs is enabled. As in the above example in which Q116 is switched off, Q113 switches off, providing the motor winding inductance a fast recovery path through CR116, through PDRV, through PPHSA, the zener CR117, CR132, and through CR124. Circuit operation is similar for any of the other selected phases. If more than one phase is selected at a time, the current divides approximately equally through the windings.

4.7.2 Paper-Out Detection

When the paper-out switch (PAPOUTSW) in the printing mechanism is actuated, indicating that there is no paper in the mechanism, a Schmitt trigger (U1B) provides an input to the buffer at U33 (schematic 999945, sheet 7). The paper-out signal is then read by the Z80A CPU, which activates the audible signal and displays an error code on the terminal status display. Operation cannot be restored until the switch is opened; that is, paper is installed in the mechanism.

4.8 PRINTHEAD CARRIAGE DRIVE

The printhead carriage drive subsystem consists of the printhead positioning and carriage jam detection circuits.

4.8.1 Printhead Positioning

The Z80A CPU terminal controller does all of the calculations and manipulations necessary to move the printhead carriage of the Model 820/825 KSR and RO Terminals. The CPU accepts position data from the encoder attached to the carriage motor and responds by sending to the motor drive circuits one of four possible acceleration commands. Motor direction is selected by the CMFWD (carriage motor forward) line emanating from output latch U6 (schematic 999945 or 2208267, sheet 8).

The acceleration of the motor is determined by the ACC1 and ACC2 lines; these two lines provide four possible combinations of acceleration commands. Since carriage motor acceleration is a function of motor current, the acceleration signals cause the motor driver circuit to act as a selectable, constant-current source for the carriage motor. Table 4-1 lists the current output of the motor driver circuit for all four acceleration combinations.

Table 4-1. Motor Driver Acceleration Control Output

ACC1	ACC2	Motor Current (amperes)
0	0	0.00
0	1	0.66
1	0	1.43
1	1	2.86

When the carriage motor is running, the Z80A CPU operating system is responsible for maintaining the appropriate motor speed for the function being performed. By comparing the time between tachometer signals with a reference time (supplied by a CTC device), the CPU determines which acceleration signals are required to maintain correct printhead travel speed and issues the appropriate commands.

Motor speed and digital direction control signals from the printer controller are converted to analog drive signals by the Model 820/825 carriage motor drive circuit (schematic 999945 or 2208267, sheet 9). Motor direction is changed by reversing the motor voltage polarity with the CMFWD line. When the CMFWD line is high (logic ONE), driver transistor Q105 is switched on and driver transistor Q106 is switched off. If the CMFWD line is low (logic ZERO), indicating a reverse motor command, Q105 is off and Q106 is on.

The carriage motor driver circuit is a constant-current switching regulator. Current for the carriage motor, when it is moving the printhead forward (left to right), is supplied by the +33 V motor supply, through Q108 (which has been switched on by Q105), through motor winding (CMTRA to CMTRB), and to the motor return line via Q110 and current-sensing resistor R125. If the motor is commanded to travel in the reverse direction (right to left), the current path is now through Q109, the motor winding (CMTRB to CMTRA), Q111, and to sensing resistor R125. The appropriate current path is selected by the CMFWD line.

The current sensing resistor R125 produces an output proportional to the amount of current passing through it. As the amount of current passing through R125 increases, the voltage drop across it increases. This change is level shifted and input to pin 2 of voltage comparator U113. The acceleration signals from the Z80A CPU provide a different reference to voltage comparator U113 for each combination received. The output of this comparator controls transistor Q107 to provide current regulation switching from the carriage motor.

The motor draws current through current-sensing resistor R125 until the voltage drop across it produces a difference signal into comparator U113. When this occurs, Q107 is switched off, which switches off the driver transistor (Q105 if forward direction or Q106 if reverse direction). When the current is switched off, the voltage drop across R125 decreases, and comparator U113 switches Q107 back on. This, in turn, switches on the appropriate driver transistor, and the drive voltage is again applied to the carriage motor. The result is a constant-current source which is regulated by the voltage reference selected by the Z80A CPU acceleration signals.

The carriage motor is coupled with an optical tachometer assembly mounted on the rear of the motor case. The tachometer assembly is an integral part of the motor and cannot be removed. The tachometer optoelectronics are supplied with a +5 V supply through J8 (schematic 999945 or 2208267, sheet 1). The outputs of the normal print tachometer are TOA1 and TOB1, which are fed to Schmitt trigger circuits and through the compressed print option selection logic.

The outputs of the compressed print tachometer are TOB1 and TOB2, which are handled similarly. The clock signal CLK— gates the tachometer pulses into latch U7 and PROM U8. The resulting output is a pulse on the SENSOR line that represents 0.2158 mm (8.33 ms) of printhead movement in normal (not compressed) print mode and a signal (DIRECT) line indicates printhead travel from left to right when high, and travel from right to left when low.

The Z80A CPU terminal controller maintains a printhead position counter in its internal RAM. Each time the SENSOR line is pulsed, the Z80A CTC at U22 (schematic 999945 or 2208267, sheet 7) counts down to ZERO and generates an interrupt. The interrupt-handler software then increments or decrements (depending on the direction of motion of the printhead) the register containing the printhead position and resets the counter in the Z80A CTC to 1 for the next movement of the printhead.

The CPU initially determines (upon power-up) printhead position by moving the printhead to the left bumper, and then advancing to the left margin. Once the printhead has positioned itself at the left margin, the terminal controller uses the tachometer feedback from the carriage motor to determine where the printhead is at any given time.

When the terminal is powered-up, the terminal controller must assume the printhead has been able to move to the left margin.

NOTE

If printhead motion is obstructed when the terminal is powered up, the terminal controller assumes the position where the printhead stopped is the left bumper. This causes all future printhead position information to be incorrect. If this occurs, remove the obstruction and cycle the power off and on.

4.8.2 Carriage Jam Detection

The determination that a jammed carriage has occurred is made in the following manner by the Z80A CPU terminal controller. If the carriage motor receives acceleration signals from the CPU to begin (or continue) movement of the printhead, a timer is started, and monitoring of the sensor pulses from the carriage motor tachometer and interface logic is begun. If the CPU does not receive sensor pulses within a specified time, a carriage jam is judged to have occurred, the appropriate error code is displayed on the TSD, and a 1-second audible tone is sounded to alert the operator to the error.

NOTE

If the carriage/paper motor fuse is not present or blown at the time of power-up or during operation, a carriage jam is indicated and cannot be cleared until fuse F103 (schematic 999945 or 2208267, sheet 9) is replaced.

4.7.2 Paper-Out Detection

When the paper-out switch (PAPOUTSW) in the printing mechanism is actuated, indicating that there is no paper in the mechanism, a Schmitt trigger (U1B) provides an input to the buffer at U33 (schematic 999945, sheet 7). The paper-out signal is then read by the Z80A CPU, which activates the audible signal and displays an error code on the terminal status display. Operation cannot be restored until the switch is opened; that is, paper is installed in the mechanism.

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NOTE

If the carriage/paper motor fuse is not present or blown at the time of power-up or during operation, a carriage jam is indicated and cannot be cleared until fuse F103 (schematic 999945 or 2208267, sheet 9) is replaced.

4.9 CHARACTER PRINTING

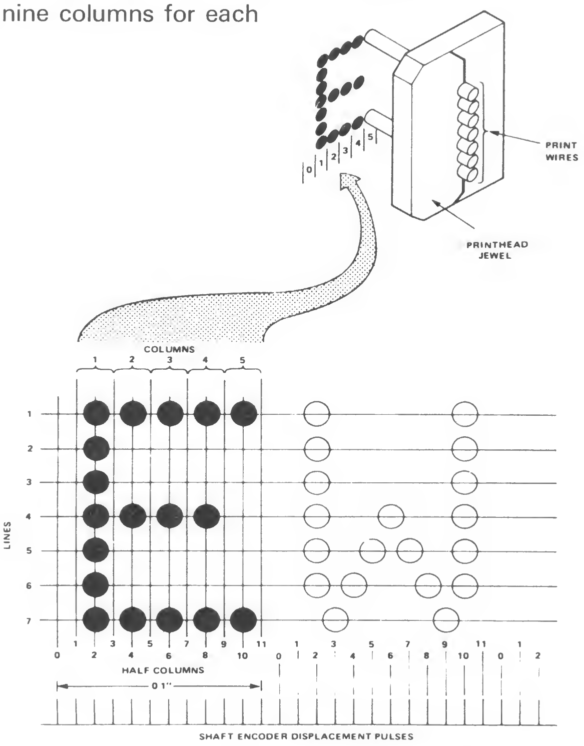
The Z80A terminal controller CPU, in its operating system processing, determines which characters in incoming data streams are to be printed and where they are to be printed. This operating system decodes these characters and generates a set of sequential addresses to be applied to the character-generator ROM located in socket XU12 (schematic 999945 or 2208267, sheet 5).

Each address is then selected by the Z80A CPU address lines (A0 — A11), producing an 8-bit digital word at the output of the character ROM. The output of the character ROM is then routed back through the CPU via the Z80A CPU data bus and gated into latch U27. The data is then transferred into latch U15 with each pulse of the SENSOR line. After the contents have been in U15 for 400 microseconds, the latch is cleared by the line CLRDOTS.

The 8-bit digital output of the latch makes up one of the nine columns used to create a character by the impact printhead. Each character is composed of nine 7-dot columns as illustrated in Figure 4-22. As the printhead travels across the form, each column is printed until all nine columns for each character are printed. The dot patterns for characters are illustrated in Appendix A. Dot patterns used with the various international keyboard options are also shown in Appendix A.

The 8-bit digital output of the latch (SF1 through SF8) is sensed by the printhead driver circuit (schematic 999945 or 2208267, sheet 12) which closes the path for the selected solenoids in the printhead. Each transistor (U102 and U103) acts as a switch for a solenoid in the printhead. Each solenoid controls one wire of the seven in the printhead.

When an input is enabled, the circuit is closed and the selected wire impacts the printing paper through the ribbon. The eighth input to the printhead driver (SF8) is an enabling line and must be enabled for the printhead to function. Each time a column is to be printed, the SF8 line must be enabled. Current regulation for the printhead solenoids is provided by transistors Q101 through Q104 with comparator U107 providing current regulation switching control to Q104. Diodes CR105 through CR111 provide flyback protection from the printhead solenoids when the circuit is opened.



2206552-40

Figure 4-22. Printing the Letter "E"

Section 5

Preventive Maintenance and Self-Test Procedures

5.1 INTRODUCTION

Preventive maintenance procedures for the Model 820/825 KSR and RO Terminals and the use of the self-test functions to isolate faults to a replaceable assembly are explained in this section. The procedures for removal and replacement of the electronic and mechanical assemblies of the Model 820/825 KSR and RO, as well as methods of adjustment, are also described.

NOTE

> The Model 820 and the Model 825 Terminals are mechanically identical. The only differences are in the firmware integrated circuits and certain operating parameters.

5.2 PREVENTIVE MAINTENANCE

The Model 820/825 Terminals are designed to provide reliable service with a minimum of operator maintenance. In order to maintain the highest level of operation, the following procedure should be followed once each month.

WARNING

> **Set the terminal ON/OFF switch to OFF and remove the power cord from the terminal in order to avoid electrical shock hazards.**

1. Switch terminal power to **OFF** and remove the power cord.
2. Lift the cover and carefully vacuum the paper chaff from the printhead and ribbon path areas (see Figure 5-1).

5.3 SELF-TESTS

The Model 820/825 Terminals provide automatic self-test functions to verify correct terminal operation. Two types of self-tests are built into the Model 820/825 KSR and RO Terminals:

- Power-up diagnostic tests
- Maintenance tests

5.3.1 Power-Up Diagnostic Tests

The following sequence of tests is performed automatically by the terminal, in the order indicated, each time power is applied to the terminal.

5.3.1.1 Indicator Test. The indicator test is initiated at the beginning of the power-up sequence. The LED indicators switch on, and the terminal status display (TSD) shows **888**. The indicator test continues until the power-up sequence is complete (approximately 2 seconds).

5.3.1.2 RAM Test. The terminal main processor exercises its random-access memory (RAM) to verify that data can be written to (recorded) and read from (played back) each memory location. A checkerboard pattern is written and read, followed by writing and reading of an inverted checkerboard pattern. If an error is detected, a RAM failure error code is activated and is displayed on the TSD. The processor proceeds to the next test, but there is no assurance that subsequent test results are valid if this test fails. (Note that a small portion of the RAM, required to execute the test program, is not tested by the checkerboard pattern.)

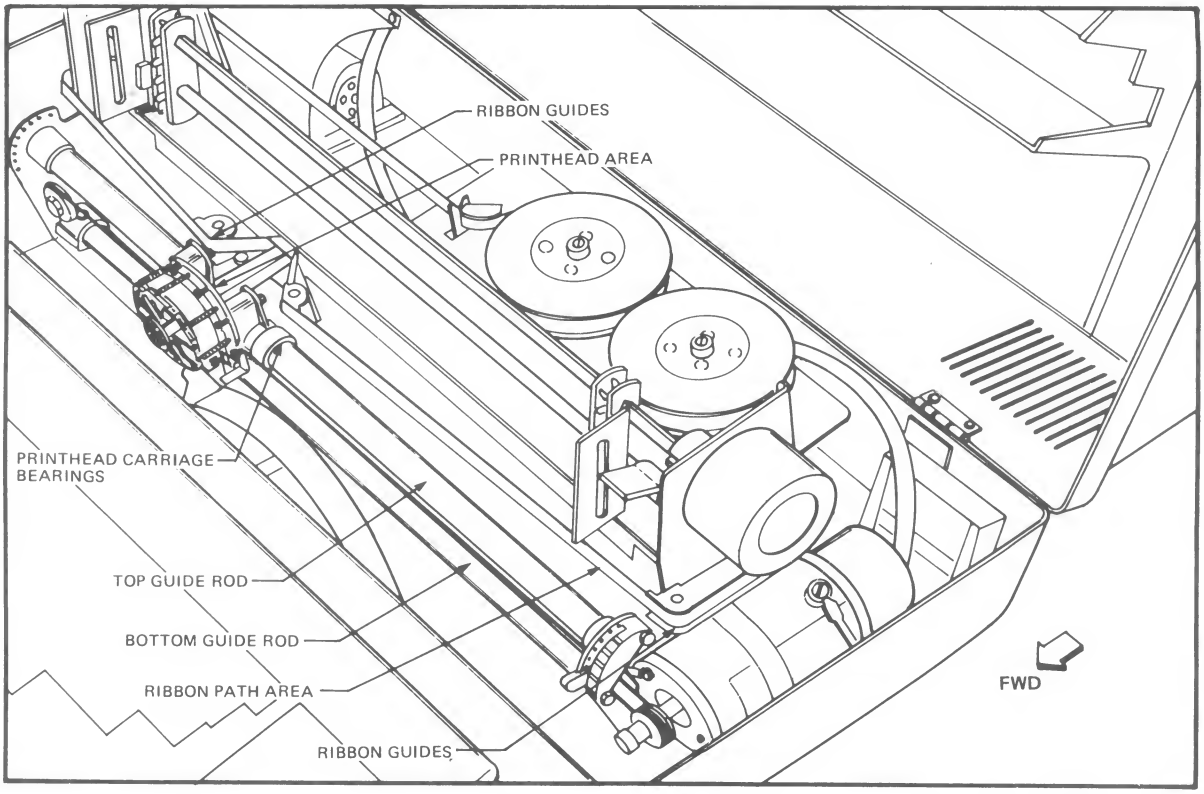


Figure 5-1. Printhead Area, Guide Rods, and Ribbon Guide

5.3.1.3 ROM Test. The terminal controller performs a cyclic redundancy character (CRC) check of its standard read-only memory (ROM), plus any installed optional ROMs. The character generator (dot table) ROM is not tested. If the result of the CRC test is unsatisfactory, a ROM failure error code is activated and displayed on the TSD. The processor proceeds to the next test, but subsequent test results may not be valid if this test fails.

5.3.1.4 Nonvolatile Memory Test. The terminal controller computes the checksum of the contents of the nonvolatile memory (configuration and format parameters). If an error is found, the processor reloads the configuration memory with default configuration and format parameters, and a nonvolatile memory error code is activated and displayed by the TSD.

5.3.1.5 Audible Tone Test. Upon completion of the memory tests and memory initialization, the audible tone sounds for 80 ms. The terminal controller then executes a power-up sequence. The last portion of the sequence causes the printhead to align to the left margin. If any power-up test failures occurred, the audible tone sounds for 1 second, and the appropriate error code(s) is displayed by the TSD. In either case the LED indicators assume their normal status.

5.3.2 Maintenance Tests

The maintenance tests must be manually initiated from the keyboard. Three maintenance tests can be performed on the standard Model 820/825 KSR Terminal:

- Barberpole test
- Run-in test
- Communication test

If the Model 820/825 KSR is equipped with an alternate character set option, it is possible to perform an:

- Alternate character set barberpole test

Two maintenance tests may be performed on the standard Model 820/825 RO terminal, in addition to the optional alternate character set barberpole test pattern:

- Barberpole test
- Run-in test

5.3.2.1 Barberpole Test. The barberpole test causes the printer mechanism to print all 95 characters of the standard character set in a repetitive barberpole pattern at maximum print speed. The pattern is printed within the defined margins.

To exercise the terminal logic to the fullest extent possible, the test pattern is generated by the terminal controller, transmitted, and looped back internally (inside the EIA interface circuits and any optional line interface) from the terminal transmitter output to the terminal receiver input before printing.

The barberpole test can be initiated using the following procedure:

Model 820/825 KSR

1. Set the **LINE/•/LCL** switch to **LCL**.
2. Simultaneously press the **CTRL**, **SHIFT**, and **1** keys. The terminal responds by printing the barberpole pattern and displaying a status code **39** (test in progress) on the TSD.
3. Terminate the test by pressing the **RESET** pushbutton.

Model 820/825 RO

1. Set the **LINE/•/LCL** switch to **LCL**.
2. Sequentially press the **TEST** and **1** keys. The terminal responds by printing the barberpole pattern and displaying a status code **39** (test in progress) on the TSD.
3. Terminate the test by pressing the **RESET** pushbutton.

Figure 5-2 shows an example of the barberpole test in standard (10 cpi) and compressed (16.5 cpi) character spacing.

```
-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqr
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrs
/0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrst
0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstu
123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuv
23456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvw
3456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwx
456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxy
56789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz
6789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{
789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|
```

Standard Printing Test

```
-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@A
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@AB
/0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@ABC
0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@ABCD
123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@ABCDE
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456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGH
56789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHI
6789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJ
789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJK
```

Compressed Printing Test

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Figure 5-2. Normal Results of Barberpole Test

5.3.2.2 Alternate Character Set Barberpole Test. An alternate character barberpole pattern may be generated by either the Model 820/825 KSR or RO if it is equipped with an alternate character set option. This test is generated exactly as the standard barberpole test, except that the alternate character set is substituted for the standard ASCII set. The test may be started in the following manner:

Model 820/825 KSR

1. Set the **LINE/•/LCL** switch to **LCL**.
2. Switch the terminal to alternate character set operation by pressing the **CTRL** and \ keys simultaneously.
3. Proceed as with an ordinary barberpole test. An alternate character set barberpole pattern is printed, and status code **39** flashes in the TSD.
4. Terminate the test by pressing the **RESET** pushbutton.

Model 820/825 RO

1. Set the **LINE/•/LCL** switch to **LCL**.
2. Sequentially press the **TEST** and **2** keys. The terminal responds by printing an alternate character set barberpole pattern, and flashes a status code **39** in the TSD.

NOTE

If no alternate character set option is installed, the Model 320/825 RO prints an ordinary barberpole pattern.

3. Terminate the test by pressing the **RESET** pushbutton.

5.3.2.3 Run-In Test. The run-in test is generated in much the same manner as the barberpole test, and is designed to test both the communications processing and (with special emphasis) the carriage mechanism. The run-in test functions as it was intended only with 132-column print widths. It generates the following pattern on the first pass of each printed line:

O (backspace) (space) K (backspace) (space) O (backspace) (space) K...

This pattern is immediately overprinted (high-speed, without backspaces and spaces) from right to left, and a new pattern begins on the next line.

The run-in test is initiated by substituting **CTRL SHIFT 6** for **CTRL SHIFT 1** in the barberpole test procedure for the Model 820/825 KSR, and by substituting **TEST 6** for **TEST 1** in the barberpole test procedure for the Model 820/825 RO Terminals.

NOTE

If a print width other than 132 columns is selected, the run-in test will not perform properly.

5.3.2.4 Communication Test (KSR Only).

Using the EIA Plug. This test helps to isolate communication problems whether internal or external to the Model 820/825 KSR Terminal. The communication system of the terminal can be tested by using a test plug that connects to the EIA port. The plug accepts the signals from the transmit side of the terminal and returns the same signals to the terminal receiver. The procedure for using the test plug is as follows:

1. Set the configure/operate switch (on the keyboard under the terminal cover) to configure and verify that the following terminal parameters are set:
   - Full-duplex reverse channel ON for READY (configuration code 14)
   - Baud — any baud rate.
2. Set the configure/operate switch to operate.
3. Insert the test plug (TI Part No. 999925-0001) into the communication interface connector at the rear of the terminal.

4. Switch the **LINE/•/LCL** switch to **LINE** position.

5. Type any printable characters on the keyboard.

6. The terminal should print the text that is typed; if it does, the communication system (EIA portion) is functioning normally.

Acoustic Coupler Transmit Level Adjustments. The communication test initiates a signal pattern to test the communication line. When the test is initiated, pressing any code-generating key on the keyboard causes the terminal to transmit the corresponding code continuously until another key is pressed, or the test is terminated. The character is transmitted at the configured baud rate (speed). The procedure for initiating and terminating the test is described below:

1. Set the **LINE/•/LCL** switch to **LINE**.

2. Simultaneously press the **CTRL, SHIFT,** and **2** keys. The terminal responds by displaying status code **39** (test in progress) on the TSD.

3. Press any code-generating key on the keyboard. If different characters are required during the test, simply press the key for the new character desired. Each time a character key is pressed, the terminal terminates transmission of the current character and begins to transmit the new character.

4. To terminate the test, momentarily press the **RESET** pushbutton. The display on the TSD resumes its normal indication.

5.3.2.5 Configuration Report. This test provides a printed report of the current terminal configuration. The configuration report may be initiated as detailed in paragraph 2.9.9.

5.3.2.6 ROM Identification Report. This maintenance test provides a printed report which identifies the ROMs installed in the Model 820/825 Terminals. The ROM identification report may be initiated as follows:

Model 820/825 KSR

1. Set the **LINE/•/LCL** switch to **LCL.**

2. Simultaneously press the **CTRL, SHIFT,** and **4** keys.

Model 820/825 RO

1. Set the **LINE/•/LCL** switch to **LCL.**

2. Sequentially press the **TEST** and **4** keys.

The KSR or RO terminal responds by printing:

nnX/nnX/nnX or NNX/nnX

where the term *nn* is a two-digit (decimal) dash number for the ROM (stored in one byte of the ROM). The term *X* is the revision letter of the ROM obtained from a code stored in one byte of the ROM. If the DFC-option ROM is installed, the final *nnX* term will be printed; if the DFC option ROM is not installed, it will not be printed.

5.4 TROUBLESHOOTING

The following outline is intended to aid in identifying malfunctioning terminal *assemblies*. It is intended as a guide for servicemen rather than as a component-level repair guide. The outline is organized as a number of problem situations and their probable solution procedures, from the most debilitating problem down to the more minor ones.

Problem: terminal appears dead upon power up

1. Check the wall receptacle.

2. Check the power cord for wear. Replace if necessary. Check for proper mating with the terminal receptacle.

3. Is power getting beyond the switch assembly to the cabling leading to the terminal electronics (main) PWB? If not, the terminal has possible switch or cabling problems. Replace if necessary.

4. Power gets to line fuse F250 but not through it. Check for blown 3A fuse (3AG LIT 312003). Check fuse connections.

5. Check E271 and E281 connections on the terminal electronics PWB.

6. Probable areas of failure: line fuse, power cord, terminal electronics (main) PWB.

Problem: terminal has power, but does not do carriage align

1. Try pressing **RESET** pushbutton to clear carriage jam if status code **11** is flashing on the TSD.

2. Check the wire rope for wear, defects, or improper assembly. Replace if necessary. Check the capstan for damage.

3. Check the ribbon for twisting. This can cause carriage jams from excessive friction.

4. Check carriage motor connections (J105 and J8).

5. Probable areas of trouble: terminal electronics PWB, carriage motor, connections.

Problem: terminal has power, display shows other than 888 during carriage align

1. Display = **]00.** RAM failure. Check seating of U2 and U3 in sockets.

2. Display = **]01.** ROM/PROM failure. Check seating of U9, U10, and U23 (if so equipped) in sockets.

3. Display = **]02.** DFC ROM failure. Check seating of U12 (if so equipped) in socket. Replace if necessary.

4. Display = **]03.** CMOS RAM failure. Check battery and battery connections. Replace if necessary. Otherwise, CMOS RAMs are at fault.

5. Display blank or any other condition. Check keyboard connections for proper seating. Replace keyboard if necessary.

6. Probable areas of trouble: terminal electronics PWB, keyboard, connections.

Problem: print quality substandard

1. Light print. Check ribbon for wear. Replace if necessary.

2. Light print or missing dots. Check printhead to platen adjustment and ribbon nose guide adjustment.

3. Missing dots. Check printhead. Replace if necessary.

4. Missing dots (same dots in each character). Probable printhead driver problems. Replace terminal electronics PWB.

5. Missing characters. Terminal electronics PWB replacement indicated.

6. Carriage moving but not printing dots. Probable printhead fuse or driver problems. Replace terminal electronics PWB. Try reseating processor (U20) and dot ROM (U11) first.

7. Probable areas of trouble: ribbon, adjustments, terminal electronics PWB.

Problem: paper feed malfunctions

1. No paper feed, but carriage motor works. Check connections J6 and J106.

2. No paper feed and no carriage motion. Probable blown carriage/paper motor fuse. Replace terminal electronics PWB.

3. Check keyboard connections to terminal electronics PWB, especially if terminal line-feeds from the communication line, but not from the keyboard.

4. Probable areas of trouble: paper motor, terminal electronics PWB, connections, keyboard.

Problem: ribbon drive inoperative

1. Check ribbon connections J6 and J101 on the terminal electronics PWB.
2. Check to see if the ribbon is tangled around spools, twisted, or not fed through ribbon guides correctly. This can cause high friction and thus lead to motor stalling and/or burnout.
3. Probable areas of trouble: connections, main PWB, ribbon motor.

Problem: unit overheats, fan malfunction

1. Check fan connection J203.
2. Check for frozen fan motor. Replace if necessary.
3. Probable areas of trouble: connections, fan motor assembly, terminal electronics PWB.

Problem: printhead stops moving

1. Check XU17 plug connector and sensor (J8) connections.
2. Clean carriage rods.
3. Check carriage motor connections (J105).
4. Check printhead to platen adjustment.
5. Probable areas of trouble: terminal electronics PWB, connections, carriage motor assembly.

Problem: erratic operation (characters printed when keys are not pressed, ribbon runs continuously, LEDs flicker, paper feeds continuously, etc.)

1. Check all ground connections on keyboard and terminal electronics PWB.
2. Check seating of U9, U10, and U20 in their sockets.
3. Probable areas of trouble: terminal electronics PWB, grounding.

NOTE

The Model 820/825 must be grounded properly for trouble-free operation! See subsection 5.6 for details on grounding.

Problem: paper feeds out of tractors

1. Adjust lateral tension (right-hand tractor).
2. Check paper box alignment with paper chute.
3. Probable areas of trouble: adjustments, alignment, tractor assembly.

Problem: terminal online, receives or transmits bad data

1. Check configuration for compatibility with host system and/or data sets.
2. Perform barberpole and run-in tests. Does terminal print **OK**?

NOTE

Barberpole and run-in tests run data from the processor through the transmitter, through a loopback device, back through the receiver, and back to the processor. If the terminal fails either test, the problem is on the terminal electronics PWB. Try reseating the processor (U20), the ROMs (U9 and U10), the CTCs (U21 and U22), the RAMs (U2 and U3), and especially the SIO device (U32). If this has no effect, replace the PWB.

3. If the terminal does the barberpole and run-in tests, insert the loopback plug (TI Part No. 999925) into the EIA connector on the rear of the machine. Reconfigure to code 09, then code 14. Switch the Model 820/825 online.

a. Do the LEDs light on the front panel? If not, or if one flashes, the problem is one of the following:

   - The terminal electronics PWB
   - The EIA internal cabling
   - The EIA connector
   - The keyboard (LED problem only).

b. If LEDs do light, try typing characters on the keyboard (KSR only). Are the characters printed? Switch offline. Enter configure mode and program an ABM message and code 71. Switch online.

c. Is the ABM message printed? If so, are they the correct characters?

d. *If yes,* the Model 820/825 Terminal hardware is probably okay, but the configuration setup or system protocol is incorrect.

e. *If no,* the problem is in the data flow between the SIO device and the communication connector. Check the cabling connections and the EIA connector. Replace if necessary. Otherwise, replace the terminal electronics PWB.

NOTE

If the Model 820/825 KSR or RO seems to be in good condition and the configuration is consistent with the system requirements, and system protocol seems to match the capabilities of the terminal, the problem may lie in the interconnection between the Model 820/825 KSR or RO and the host system. See subsection 5.6 for grounding requirements. If a modem system provides system communication, have the modems tested if possible. Also, make sure the modem attached to the Model 820/825 conforms to the grounding requirements in subsection 5.6. Check all cabling for secure connections.

4. Probable areas of trouble: terminal electronics PWB, configuration, cabling/connections, grounding.

5.5 GROUNDING REQUIREMENTS

The Model 820/825 Terminals must be grounded properly! The terminals are equipped with a grounded power cord which is meant to be used as is. This ground line connects the Model 820/825 KSR or RO chassis (or safety) ground signals to the external ground reference.

5.5.1 Chassis Ground

The power cord ground line is attached to the ground plane network of the Model 820/825 near where the cord enters the machine. This ground plane network lies beneath the terminal electronics (main) PWB with straps connecting it to the mechanism and the keyboard assembly. Jumpers connect the main mechanism assembly to the ribbon motor assembly and the communication connector bulkhead. This ground plane network provides suppression of radio-frequency emanations from the Model 820/825, for noise immunity, for static discharge resistance, and for the distribution of the chassis ground signal to all points in the Model 820/825 Terminal.

NOTE

If the Model 820/825 is equipped with a paper basket, the basket should be securely grounded to the case with the supplied ground jumper, unless the terminal is equipped with a sheet-metal ground strap inside. The ground strap is spring-loaded against the basket to provide a ground connection.

The ground plane beneath the terminal electronics PWB is attached to that PWB via three screws. The first screw is in the rear right-hand area of the PWB, near E27, and connects chassis ground to J3 and J13, and then through the EIA internal cable to pin 1 of the EIA connector at the rear of the terminal. The second screw is near the printhead cable connector and connects the ground plane to the chassis ground network in the power supply as well as grounding (via jumpers) the driver heatsinks. The third and largest screw connects the ground plane directly to the power supply section of the terminal electronics PWB. The third screw is located between the power supply secondary capacitors and the transformer. All three screws must be in place and tightened for proper operation.

5.5.2 Signal Ground

The signal ground return emanates from the power supply area and branches throughout the terminal electronics PWB, primarily via two bus strips. It provides the logic ground, driver ground, and communications signal ground return paths. Signal ground may be either jumpered directly or capacitively coupled to chassis ground, depending on the jumper configuration among E221, E222, and E223.

If E221 and E222 are jumpered together, signal and logic grounds are capacitively coupled and are thus isolated. If E223 is connected to E221 or E222 (they are tied together), signal and logic grounds are now directly coupled.

NOTE

> The Model 820/825 KSR and RO Terminals are shipped from the factory with all ground jumpers intact and connected. They should remain this way. The Model 820/825 Terminals are jumpered such as to provide isolation between chassis and signal grounds. Except for the cases noted in the next section, this is the ordinary mode of operation and should provide satisfactory service.

5.5.3 System Requirements

Any system of which a Model 820/825 KSR or RO Terminal is to be a part must have one, *and only one* common connection between the system's signal and logic grounds. More than one common point between these two signals can set up a condition known as a *ground loop*, which can be potentially destructive to the system as well as interfering with its proper operation.

5.5.3.1 Hardwired (Console) Applications. If the Model 820/825 is to be used in any sort of hardwired applications, such as the console unit of a computer system, or the hard-copy output device for a CRT/host computer network, care must be taken that all the devices in hardwired connection with the Model 820/825 unit are properly grounded. Hardwired in this context refers to direct wiring between machines without the use of telephone lines.

Each machine of the system should be properly grounded (via a three-wire power cord and a three-wire extension cord, if necessary), and there should exist only one point in the entire system where signal and chassis grounds should meet. Normally this will not be in the Model 820/825 KSR or RO; however, the jumper network mentioned in the previous section can arrange for this connection.

Pin 1 of the EIA connector should be cabled to the host machine chassis ground pin, usually pin 1 on its connector. Also, pin 7 (signal ground) should be cabled to the corresponding point on the host system in a similar manner. All cables in the system should be secure and sturdy. Any other units in the system also should have the signal ground and chassis ground returns cabled to them.

5.5.3.2 Data Set Applications. Most data sets are equipped with a three-wire power cable which is *meant to be used*. Any extension cords used in conjunction with the data set should also be of the three-wire type.

If the Model 820/825 KSR or RO is to be used with a data set, generally the system consists only of the Model 820/825 Terminal, the data set, and the connecting cable. The telephone lines and the host system are not critical in grounding requirements (i.e., they will not generally affect the operation of the Model 820/825 units). Most data sets are installed with signal and chassis grounds strapped together, so this can provide the one and only one necessary common point.

5.5.3.3 Current-Loop Applications. When the current-loop option is used, the terminal signal ground is electrically isolated from the rest of the system. In this case it is usually necessary to couple directly the signal and chassis ground in the Model 820/825 by connecting E221 to E222 or E223.

Care should be taken to see that the cable between the Model 820/825 and the data set is properly secured and unworn. Pin 7 of the Model 820/825 should be connected to pin 7 of the data set; pin 1 to pin 1 is also required.

5.6 ASSEMBLIES REMOVAL AND REPLACEMENT

The following subsections provide removal and replacement procedures for replaceable parts. Refer to Section 6 for Texas Instruments part numbers for assemblies and components.

See Figures 5-3 and 5-4 for assembly and parts identification. See Table 5-1 for optional ROM and PROM location and part numbers. See Table 5-2 for a list of strappable options on the terminal electronics PWB.

CAUTION

Do not attempt to remove the connectors named in the following procedures by grasping the cables since the connector bodies can become detached from the plastic housing. If the connectors do not disconnect easily, use needle-nose pliers to grasp the connector bodies, not the cables.

5.6.1 Full Opening of Terminal Cover

Remove the terminal cover as follows:

1. Unplug the power cord from the rear of the terminal.
2. Open the terminal cover by grasping the right and left front corners and gently lifting until the cover will raise no further. A plastic stay on some models at the inside right rear holds the cover open at approximately 45 degrees from horizontal.

NOTE

Ignore steps 3 and 4 if the terminal has no stays.

3. While holding the terminal cover with one hand, grasp the top of the plastic stay with the other hand and move the stay to the right.
4. Move the top of the plastic stay to the right until it clears the mounting pin.
5. Holding the stay clear of the pin, the terminal cover can now be swung back until it rests on the desk or tabletop in a fully opened position.

Reposition the terminal cover as follows:

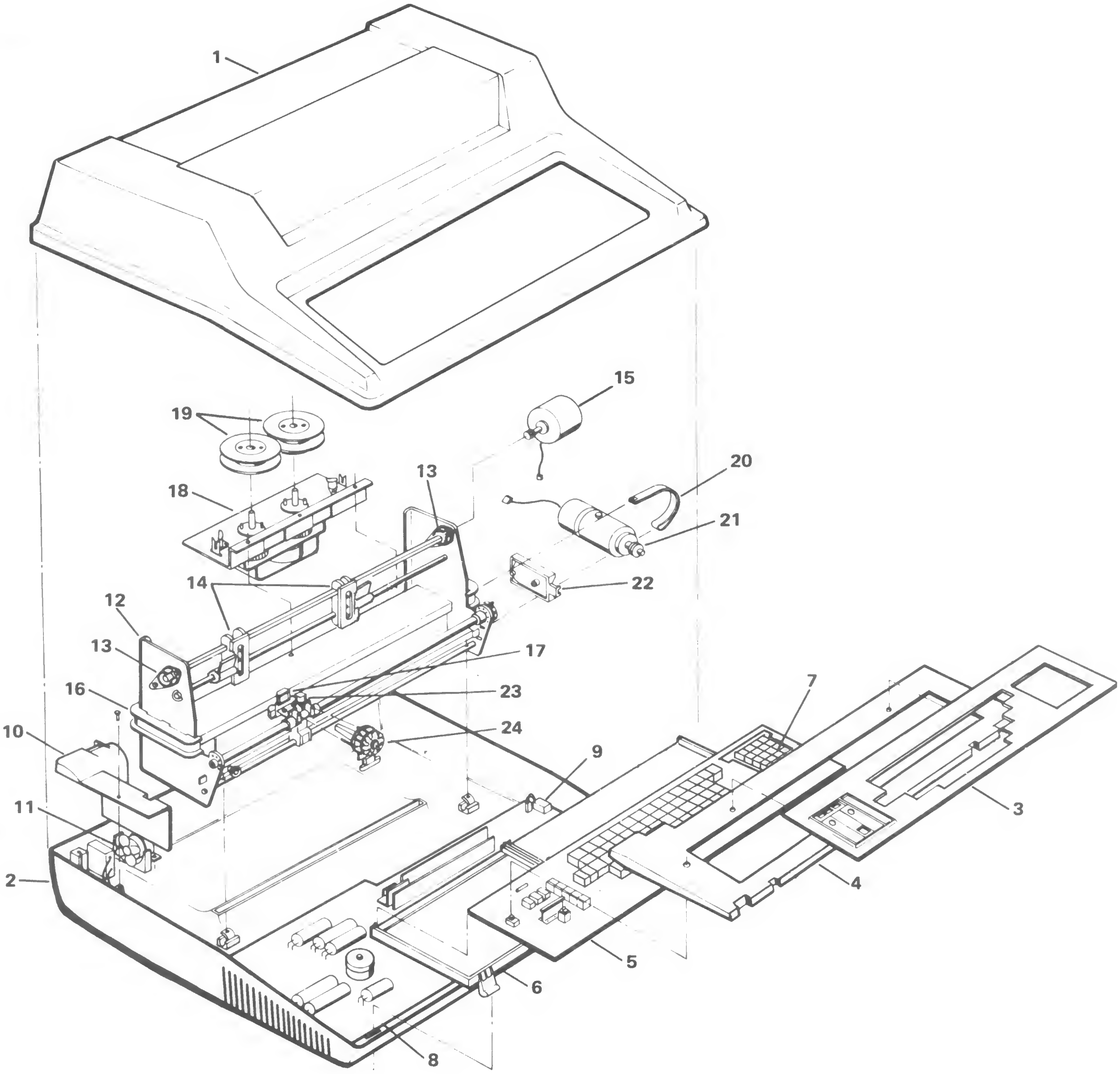
NOTE

Ignore steps 1 and 2 if the terminal has no stay.

1. Holding the terminal cover with your left hand and the plastic stay attached to the inside right rear of the cover with your right hand, return the cover to an approximate 45 degree position.
2. Supporting the terminal cover with the plastic stay, align the mounting pin with the stay and engage the plastic stay into the mounting pin.
3. Close the terminal cover by gently pushing the cover down until the closures snap shut.
4. Plug the power cord into the power receptacle at the rear of the Model 820/825 KSR or RO.

Table 5-1. Optional PROM/ROM Part Numbers and Locations on the Terminal

Option	TI Part Number	Logic PWB (999947-0001) Device	Socket
DFC Option	2207626-0001	ROM	XU12
User-Defined Configuration or Protected ABM Option	2207628-0001 2207628-0002	PROM PROM	XU24 XU45 (Spare)
Alternate Character Sets	See Table C2 (Appendix C)	PROM	XU23



1. Terminal Cover
2. Terminal Base
3. Keyboard Bezel
4. Plenum,PWB
5. Keyboard,PWB
6. Card Frame
7. Numeric Keypad
8. Terminal Electronics
9. Kit,Battery,Package
10. Fan Plenum
11. Fan Assembly
12. Printer Mechanism Assembly
13. Paper Advance Bearing
14. Tractor,Paper,Precision
15. Motor Assembly,Paper Drive
16. Ribbon Guide
17. Nose Guide,Printhead
18. Ribbon Drive
19. Ribbon Spools
20. Strap,Motor
21. Carriage Drive Motor Assembly
22. Cradle Motor
23. Carriage Assembly,Printhead
24. Printhead Assembly,30V

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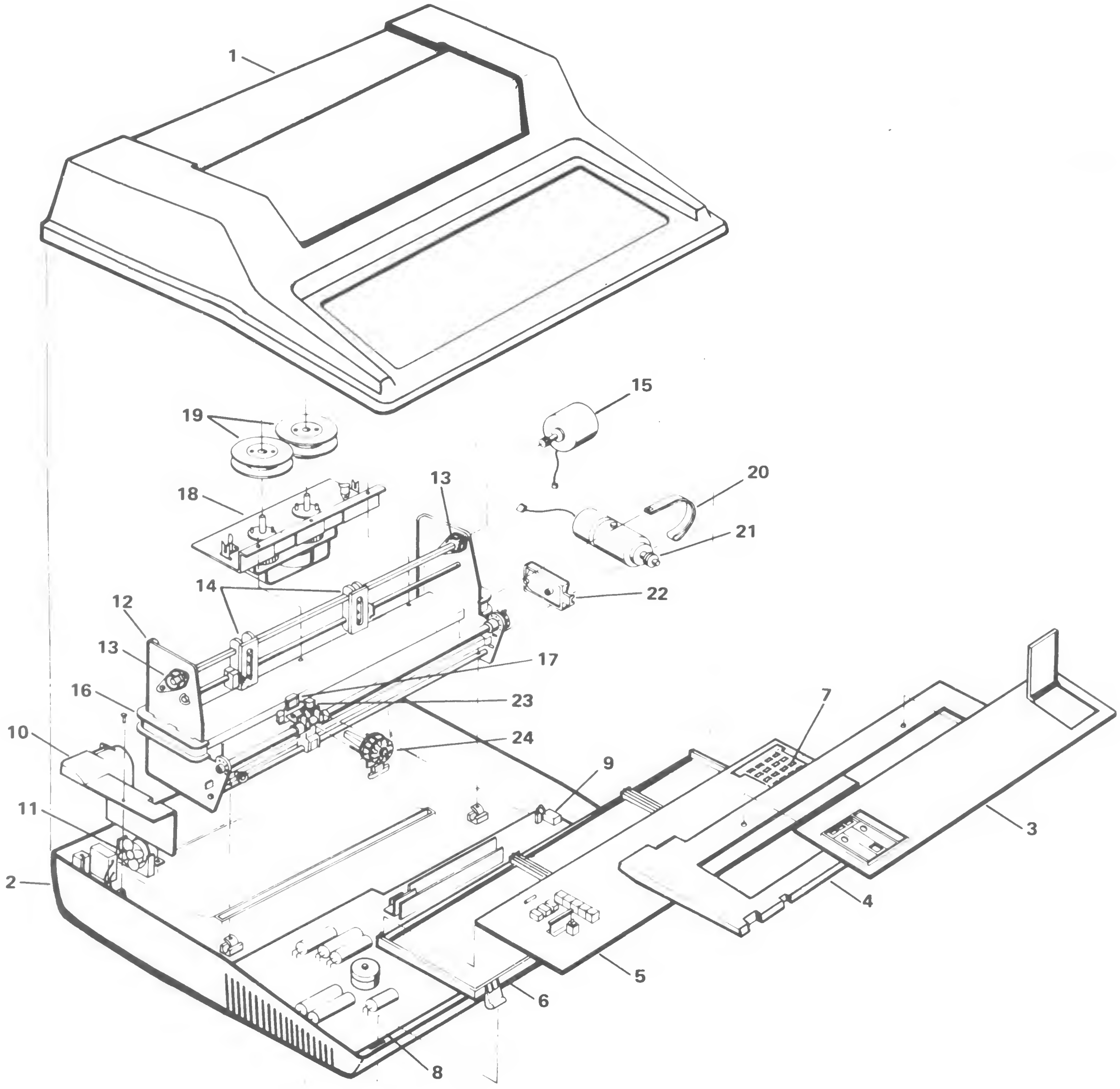
Figure 5-3. Model 820/825 KSR Exploded View



1. Terminal Cover
2. Terminal Base
3. Keyboard Bezel
4. Plenum,PWB
5. Keyboard,PWB
6. Card Frame
7. Operator's Keypad
8. Terminal Electronics
9. Kit,Battery,Package
10. Fan Plenum
11. Fan Assembly
12. Printer Mechanism Assembly
13. Paper Advance Bearing
14. Tractor,Paper,Precision
15. Motor Assembly,Paper Drive
16. Ribbon Guide
17. Nose Guide,Printhead
18. Ribbon Drive
19. Ribbon Spools
20. Strap,Motor
21. Carriage Drive Motor Assembly
22. Cradle Motor
23. Carriage Assembly,Printhead
24. Printhead Assembly,30V

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Figure 5-4. Model 820/825 RO Exploded View

Table 5-2. Strappable Options on the Terminal Electronics PWB

Option	Jumper Location
To connect signal ground to chassis ground	E222 to E223
To isolate signal ground from chassis ground (STANDARD)	E221 to E222

5.6.2 Removal and Replacement of the Keyboard Plenum

Remove the keyboard plenum as follows:

1. Unplug the power cord from the rear of the terminal.
2. Lift open the terminal cover.
3. Remove the keyboard bezel by grasping the extreme right and left edges and lifting up.
4. Manually slide the printhead approximately 4 inches to the right of center of the platen.
5. Using a blade screwdriver, disengage the four retainer clips at the front of the keyboard plenum.
6. Grasping the right and left front edges of the keyboard plenum, raise the front of the plenum approximately 10 degrees to clear the clip latches.
7. While supporting the plenum at approximately 10 degrees, disengage the three rear latches beginning with the right rear latch.
8. Lift the plenum clear of the terminal with slight forward motion and set it aside.

Replace the keyboard plenum as follows:

1. Verify that the printhead is positioned approximately 4 inches to the right of the center of the platen.
2. Verify that the cable from the mechanism to the PWB is routed correctly and secured properly.
3. Grasp the edges of the plenum and insert the rear of the plenum between the printhead and cables, ensuring that the plenum fits over the rear fan plenum housing.
4. Lift the front of the fan plenum approximately 10 degrees and insert the three rear tabs into their respective slots inside the terminal.
5. Gently push the front of the fan plenum down until it rests on the four front retaining tabs.
6. Using a blade screwdriver, engage the retaining tabs into their respective latches.
7. Replace the keyboard bezel and close the terminal cover.

5.6.3 Removal and Replacement of the Fan Assembly

Remove the fan assembly as follows:

1. Unplug the power cord from the rear of the terminal.
2. Remove the terminal cover as described in paragraph 5.6.1.
3. Remove the keyboard plenum as described in paragraph 5.6.2.

4. Using a blade screwdriver, remove the single retaining screw located on top of the fan plenum.

5. Move the rear of the fan plenum toward the front of the terminal to remove it from under the hinge nut plate. Disengage the feet and lift the plenum up and to the left to remove it from the base.

NOTE

> Observe the routing of the fan cable so you can reinstall it the same way.

6. Disconnect the fan cable (connector P203) at J203 on the PWB and remove the cable from the snap-in type routing guides.

7. Using a blade screwdriver, remove the two mounting screws and lift out the fan assembly.

8. Slip the fan motor out of its bracket.

Replace the fan assembly as follows:

1. Install the fan motor into the fan bracket.

2. Mount the fan bracket with the two mounting screws while tightly grasping the bracket around the fan motor with needle-nose pliers. Make sure that the fan blade can rotate freely before securing the two mounting screws.

3. Reroute the fan assembly cable on the terminal electronics PWB as it was originally routed.

4. Reconnect connector P203 to PWB connector J203.

5. Replace the fan plenum and the fan plenum retaining screw (ensuring that the two bottom plenum feet are engaged with the base slots and secured with the hinge nut plate).

6. Replace the keyboard plenum as described in paragraph 5.6.2.

7. Connect the power cord and apply power. Then verify operation.

8. Replace the terminal cover as described in paragraph 5.6.1.

5.6.4 Removal and Replacement of the Keyboard Assembly (Keyboard PWB)

Remove the keyboard assembly as follows:

1. Unplug the power cord from the rear of the terminal.

2. Lift the terminal cover.

3. Remove the keyboard bezel by grasping the extreme right and left edges and lifting up the bezel.

4. Remove the keyboard plenum as described in paragraph 5.6.2.

5. Remove the 33 mm (1 1/4 in) wide sheet-metal ground strap attached to the front left corner of the keyboard PWB by pulling it down and away from the plastic connector.

6. Loosen the four keyboard PWB keepers along the rear edge of the PWB, using both hands to press in at the base of the keepers while lifting the keyboard slightly.

7. Lift the tach motor cable, paper drive motor cable, and ribbon drive motor out of their cable retainers on the right side of the case.

8. Remove the 25-conductor ribbon cable from its connector on the keyboard PWB.

9. Snap the keyboard keepers up and away from the keyboard.

10. Lift the keyboard assembly up from the rear and remove the keyboard PWB out of its plastic mounting assembly.

Replace the keyboard assembly as follows:

1. Reconnect the 25-conductor ribbon cable to the keyboard PWB.

2. Snap the four keyboard assembly keepers back in place (if removed).

3. Replace the tach motor cable, paper drive motor cable, and ribbon drive motor cable back into their holders on the right side of the case.

4. Reconnect the ground strap to the front left corner of the keyboard PWB.

5. Replace the plenum as described in paragraph 5.6.2.

6. Replace the keyboard bezel and close the terminal cover.

7. Connect the power cord and apply power to verify operation.

5.6.5 Removal and Replacement of the Terminal Electronics PWB

Remove the terminal electronics PWB as follows:

1. Unplug the power cord from the rear of the terminal.

2. Remove the keyboard assembly as described in paragraph 5.6.4 (steps 2 through 10).

3. Remove the two ac power connectors located in the lower left corner of the terminal electronics PWB at E281 and E271 and disconnect the fan cable from J203. Disconnect the connectors attached to J101, J104, J105, J106, J6, and J8.

4. Disconnect I/O interface connector P3 and the ground leads from the aluminum ground shield.

5. Unscrew the three board mounting screws.

6. Lift the terminal electronics PWB from the terminal.

NOTE

When replacing the terminal electronics PWB, refer to Table 5-1 for location of the option PROMs and other components which must be transferred to the replacement PWB assembly. Table 5-2 lists strappable options.

Replace the terminal electronics PWB as follows:

1. Place the terminal electronics PWB in the bottom of the terminal case.

2. Reinsert the three board mounting screws.

3. Attach the ac power connectors at E281 and E271 and reconnect the I/O interface connector P3, fan connector P203, and ground leads to the aluminum ground shield. Reattach the cable connectors to J101, J104, J105, J106, J6, and J8.

4. Reinstall the keyboard assembly by inserting the keyboard keeper posts in the slots provided on the terminal electronics PWB.

5. Complete replacement of the keyboard assembly as described in paragraph 5.6.4.

5.6.6 Removal and Replacement of Terminal Electronics PWB Battery

Remove the battery as follows:

1. Unplug the power cord from the rear of the terminal.

2. Remove the keyboard assembly as described in paragraph 5.6.4 (steps 1 through 7).

3. Disconnect the battery cable at J9, located in the upper right corner of the terminal electronics PWB (see Figure 5-3 or 5-4).

4. Carefully disengage the battery from the RTV adhesive with a knife.

Replace the logic PWB battery as follows:

1. Install a new battery (TI Part No. 999880-0001), using a cable strap or RTV adhesive, and reconnect the connector at J9. Figure 5-5 illustrates the PWB battery details.
2. Reinstall the keyboard assembly as described in paragraph 5.6.4.

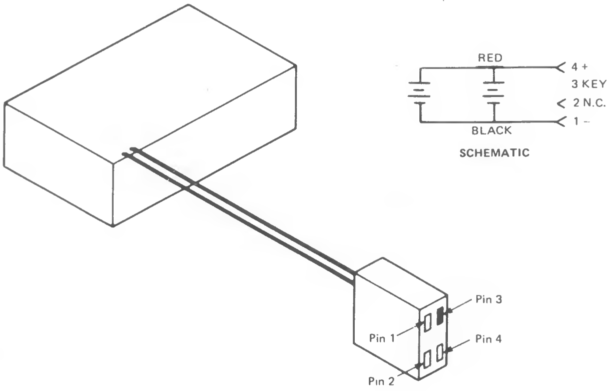

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Figure 5-5. Logic PWB Battery Details

5.6.7 Removal and Replacement of PWB Fuse (250V, 3A)

Remove and replace the PWB as follows:

1. Remove the keyboard assembly as described in paragraph 5.6.4 (steps 1 through 7).
2. Replace the fuse (TI Part No. 416434-0303, LCT 312003) located in the front left corner of the terminal electronics PWB at F250.
3. Reinstall the keyboard assembly as described in paragraph 5.6.4.

5.6.8 Removal and Replacement of Paper Drive Motor

Remove the paper drive motor as follows:

1. Unplug the power cord from the rear of the terminal.
2. Remove the terminal cover as described in paragraph 5.6.1.
3. Open the paper drive tractor flaps and remove any paper from the terminal.
4. Remove the keyboard plenum as described in paragraph 5.6.2.
5. Lift both ribbon spools off their spindles and carefully remove the ribbon from the ribbon guides. Wind the excess ribbon onto either spool and set the ribbon spools aside.
6. Using a blade screwdriver, remove the single screw holding the ribbon guide on the right side of the printer subassembly (Figure 5-1). Lay the guide aside. Remove all cable ties from the paper drive motor cable-to-cable bundle (observe location of the cable ties for subsequent reassembly).
7. Using a small wrench or nutdriver, loosen the two nuts that hold the paper drive motor to the printer subassembly frame.

The motor is attached via studs in the motor case.

8. Grasp the motor with your right hand while removing the nuts and washers with your left; take care to avoid dropping parts into the terminal base. Set the nuts and washers aside.

9. Pull the motor out of the pinion hole and gently lift the motor cable (located below the paper drive motor) from around the carriage motor, along with the cable clip and the cable holders of the keyboard keepers.

10. Set the motor on a bench or tabletop and remove connectors P106 and P104.

Replace the paper drive motor as follows:

1. Insert the paper drive motor shaft into the hole provided in the printer mechanism frame and seat the motor flange flush with the mechanism side plate. Apply silicone grease (TI Part No. 232334-6050) between the rivet on the end of the gear and the motor flange.

2. Push in on the motor and the plastic tractor drive and rotate the motor slightly back and forth until the motor flange and the tractor drive fit flush against the frame.

3. Insert the studs through the gear bearing housing and frame.

4. Replace washers and nuts and tighten.

5. Route the cable around and under the rear of the carriage motor (located below the paper drive motor) and along the right side of the carriage motor. Insert the cable into the cable restraint and close the restraint.

6. Place the cable into the two keyboard keepers on the right side. Replace the cable ties removed in step 6 of the removal procedure.

7. Connect P104 and P106 to J104 and J106 on the terminal electronics PWB. Ensure that the connectors are seated all the way down, or erratic terminal operation may result.

8. Replace the right ribbon guide, ensuring that the paper drive motor cable is safely captured between the guide and the side plate.

9. Replace the ribbon; replace the keyboard plenum as instructed in paragraph 5.6.2; and replace the terminal cover as described in paragraph 5.6.1.

5.6.9 Removal and Replacement of the Tractor Assembly

Remove the tractor assembly as follows:

1. Remove the terminal cover as described in paragraph 5.6.1.

2. Remove the inside E-ring from the round tractor support rod by applying pressure between the rod and the ring with a screwdriver. Once the ring begins to detach, hold it with your free hand to prevent it from flying off.

3. Remove the outer snap ring by hand.

4. Loosen the locking device on the tractors and slide the round rod to the left and out of the mechanism.

5. Use a blade screwdriver to remove the left bearing which supports the tractor square drive shaft. Carefully avoid dropping washers and nuts into the terminal base and do not lose the hub and spring located on that end of the bar.

6. Remove the tractor assembly from the mechanism. (If the tractor drive gear remains on the end of the bar, slide it off and set it aside.)

7. Slide the tractors off the bar; take care not to bend the bar.

Replace the tractor assembly as follows:

1. Slide the tractors onto the square drive bar. Verify that the locking device for the left tractor is on the left and the locking device for the right tractor is on the right and that the alignment mark on both tractors drive sprockets align with the same corner of the square drive shaft.

2. With the tractor doors facing you, place the drive gear (gear fitted tightly on the shaft) on the right end of the shaft with the semicircle portion of the gear adjacent to each flat surface of the shaft.

3. Insert the gear and shaft into the bearing on the right side plate.

4. Replace the hub with spring on the left end of the drive shaft with the semicircles of the hub adjacent to each drive shaft surface. Slip the bearing onto the hub and fasten the left side plate.

5. Slide the round rod (nongrooved end first) from left to right through the left side plate, through the tractors, and through the right side plate.

6. Using needle-nose pliers, replace the E-ring on the round rod, ensuring it is located inside the left side plate.

7. Replace the outer snap ring on the round rod outside the left side plate.

8. Position the paper tractors as required and reload printing paper.

5.6.10 Removal and Replacement of the Printhead

Remove the printhead as follows:

1. Disconnect the power cord from the rear of the terminal.

2. Lift the terminal cover.

3. Remove the keyboard plenum as described in paragraph 5.6.2.

4. Remove and save the plastic cable retainer clip at the pointer where the printhead cable is folded beneath the printhead.

5. Using a small wrench, remove the two long hex nuts located behind the printhead and facing the ribbon guides.

6. Grasp the printhead and pull it toward the front of the terminal until the two mounting bolts clear the mounting frame.

7. Disconnect the printhead ribbon cable connector (J20) from the connector at the bottom of the printhead.

Replace the printhead as follows:

CAUTION

When handling the new printhead, take care not to damage the springs after removing the foam shipping material. Grasp the printhead only by the mounting plate or the plastic needle housing. DO NOT handle the printhead by the springs around the circumference of the printhead.

1. Connect the printhead ribbon cable connector (J20) to the connector at the bottom of the printhead.

2. Position the printhead so that the mounting screws align with the mounting holes in the support frame and slide the printhead toward the platen as far as it will go.

3. Start the two long nuts on the mounting screws and hand tighten.

4. With a small wrench or pliers, tighten the long nuts 1/6 turn past hand tightened.

5. Replace the plastic cable clip, starting the clip at the end with the notched corner.

6. Replace the plenum as described in paragraph 5.6.2 and reconnect the power cord to the rear of the terminal.

7. If the printhead smudges the paper during printing and the problem cannot be corrected with the form thickness adjustment, it may be necessary to adjust the ribbon guide at the nose of the printhead as described in paragraph 5.6.11.

8. Close the terminal cover.

5.6.11 Printhead Ribbon Guide Adjustment

Adjust the printhead ribbon guide as follows:

1. Lift the terminal cover and rotate the printhead adjustment lever all the way toward the keyboard.

2. Remove the ribbon as described in paragraph 5.6.8, step 5.

3. Loosen the two screws on either side of the nose of the printhead and slide the ribbon guide away from the platen, exposing the printhead nose through the ribbon guide window.

4. Place a shim (file card, credit card, ID badge) between the platen and the printhead nose.

5. Using the adjustment lever, push the printhead nose against the shim until it is held firmly against the platen.

6. Slide the ribbon guide toward the platen, holding it flush against the shim and tighten the screws. Using the adjust lever, remove the shim.

7. Replace the ribbon and set the printhead adjust lever for proper printing.

5.6.12 Removal and Replacement of the Ribbon Drive Subassembly

Remove the ribbon drive subassembly as follows:

1. Unplug the power cord from the rear of the terminal.

2. Remove the terminal cover as described in paragraph 5.6.1.

3. Remove the ribbon spools from the ribbon spindles and guides and set aside.

4. Remove the three screws that attach the ribbon drive subassembly to the printer mechanism frame.

5. Tilt the subassembly backward to rest in the rear cavity of the terminal base.

6. Remove the two spade lugs from the ribbon reverse switch, noting their orientation for reconnection to the replacement unit.

7. Cut the cable tie that secures the motor cable to the rear bar of the printer mechanism frame and the cable ties attaching it to the rest of cable, noting the position of cable ties.

8. Disconnect cable connector P101 from the terminal electronics PWB (the main PWB) and carefully lift the cable out of the keyboard keepers, the cable restraint, and from around the carriage motor.

Replace the ribbon drive subassembly as follows:

1. Lay the replacement assembly in the rear cavity of the terminal base.

2. Attach the two spade lugs to the ribbon reverse switch of the ribbon drive subassembly. Verify that the connections are oriented the same as the unit that was removed or the ribbon will not reverse automatically.

3. Attach a cable tie to hold the motor cable to the rear frame bar of the print mechanism.

4. Hold the ribbon drive subassembly in place and install the three screws that secure the subassembly to the rear of the print mechanism framework.

5. Route the ribbon drive motor cable around and under the carriage motor and through the cable restraint. Replace the cable ties removed in step 7 of the removal instructions.

6. Connect P101 at J101 on the terminal electronics PWB, ensuring that the connector is snugly joined.

7. Place the cables in the keyboard keeper cable retainer.

8. Replace the ribbon. It may be necessary to readjust the subassembly (by loosening the three mounting screws and moving the assembly to front or rear and retightening the screws) so that the ribbon passes through the center of the slots in the shift arm.

9. Replace the terminal cover as instructed in paragraph 5.6.1.

5.6.13 Removal of the Carriage Motor and Mechanism, Wire Rope, or Mechanism

To remove the wire rope, do steps 1, 2, 6, and 10, and to reinstall the rope, do steps 6 through 11 and 15 and 17 under "Replacement."

1. Unplug the power cord from the rear of the terminal.

2. Remove the terminal cover and plenums as described in paragraphs 5.6.1, 5.6.2, and 5.6.3, respectively.

3. Disconnect the ground strap on the left side of the mechanism that is attached to the PWB ground plane.

4. Disconnect the ground lug at the rear of the terminal to the left of the EIA connector, and/or disconnect the U-clip from the side plate flange to separate the paper basket ground strap from the mechanism.

5. Disconnect all the connectors at the rear of the terminal electronics PWB (including the printhead ribbon cable), and lift the cables out of the cable restraint and keyboard keepers. Remove all cable ties, noting their positions.

6. Push the idler pulley support to the right until the slot on the bottom of the support catches on the right sideplate of the print mechanism frame.

7. Insert a blade screwdriver at an angle next to the upper printhead carriage rod to remove the front two mounting screws.

8. Remove the two rear mounting screws.

9. Lift the entire printer mechanism subassembly up and out of the terminal. *Do not lift the mechanism by the square tractor drive shaft.*

10. Remove the wire rope from the capstan by disengaging the end of the wire rope from either end of the capstan and unwrapping the wire.

11. Remove the ground strap screw from the front of the motor and remove the ground strap.

12. Loosen the motor strap retaining screw inside the bottom of the right side plate.

13. Press down on the top of the motor strap to disengage the strap from the side plate.

14. Remove the carriage motor.

15. Remove the plastic cradle from the carriage motor by removing the screw that holds the cradle to the motor.

16. Remove the two wires from the motor terminal, noting their orientation for connecting the replacement unit.

Replace the carriage motor and mechanism as follows:

1. Connect the motor drive cable spade lugs to the carriage motor terminals as they were connected to the old motor.

2. Attach the plastic cradle to the motor.

3. Position the motor against the side plate.

4. Hook the motor strap onto the tab in the side plate and tighten the retaining screw.

5. Replace the ground strap onto the front of the motor with the screw that previously held it.

6. Turn the wire rope capstan so that the rear wire rope is at the top.

7. Insert the ball of the top wire rope end into the slot. The tip of a screwdriver may be required to press the ball for a snug fit.

8. Holding the wire rope between your left thumb and forefinger, turn the capstan clockwise 6 1/2 turns.

9. Guide the wire rope into the capstan grooves. When complete, the outer capstan slot should be pointing up.

10. Wrap the lower end of the wire rope counterclockwise around the capstan starting with the groove adjacent to the last one filled by the upper rope end.

11. Insert the ball into the capstan slot.

12. Loop the printhead cable and the motor cables over the tractor drive bar to keep them out of the way during installation of the printer mechanism subassembly.

13. Replace the printer mechanism into the terminal base so that mounting screw holes are aligned with the mounting holes in the base. *Do not lift the mechanism by the square tractor drive shaft.*

14. Insert the mounting screws and partially tighten them.

15. Gently return the idler pulley support to the operating position by lifting the right end while holding the support to the right with your free hand, preventing the pulley from snapping back.

16. Route and connect all cables, including the ground lugs to the left of the EIA connector and the ground strap on the left side. Replace all cable ties removed in step 5 of the removal procedure. If the terminal is equipped with metal ground straps, position the paper basket ground strap so that the leg that is approximately 1-inch long and 0.31-inch wide is on the inside of the side plate flange. Replace the U-clip over the ground strap and side plate. See Figure 5-6.

17. Replace the plenums and terminal cover as described in paragraphs 5.6.3, 5.6.2, and 5.6.1, respectively.

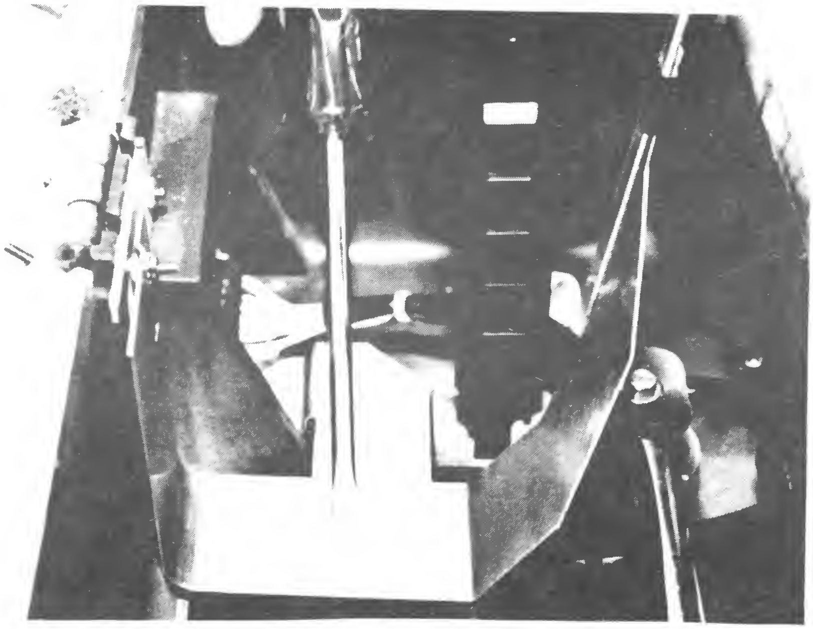

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Figure 5-6. Paper Basket Ground Strap

Section 6

Assembly Drawings and Lists of Materials

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Figure 6-1	Model 820/825 KSR Exploded View	page 6-6
Figure 6-2	Model 820/825 RO Exploded View	page 6-7

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999686AF	Model 820 KSR 10/16-cpi Terminal	0101, 0201, 0401, 0801	6-14
999685AA	Model 820 KSR 10/16-cpi Package	0101, 0201, 0401, 0801	6-20
999975P	Model 820 RO 10-cpi Terminal	0101, 0201, 0401, 0801	6-26
999980R	Model 820 RO 10/16-cpi Terminal	0101, 0201, 0401, 0801	6-32
999979T	Model 820 RO 10/16-cpi Package	0101, 0201, 0401, 0801	6-38
999690BA	Model 820 Basic Terminal	0101, 0102, 0201, 0202, 0401, 0402, 0801, 0802	6-44
	Model 825 Major Assemblies		
2207400M	Model 825 KSR 10-cpi Terminal	0101, 0201, 0401, 0801	6-63
2207409K	Model 825 KSR 10/16-cpi Terminal	0101, 0201, 0401, 0801	6-69
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2207408M	Model 825 RO 10/16-cpi Package	0101, 0201, 0401, 0801	6-91
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999691H	KSR Keyboard, Full ASCII or APL	0101, 0102, 0201, 0202, 0301, 0302	6-115
999859C	KSR Keyboard, Katakana	0001, 0002	6-120
2206573AD	Mechanism	0001, 0002, 0003, 0004	6-123
999972E	RO Control Panel	0001, 0002, 0003, 0004	6-140
999974E	Terminal Elect PWB w/Gnd Plane	0101, 0201, 0401, 0801	6-143
999947BA	Terminal Elect PWB (replaced by 2208265)	0101, 0001, 5101, 0201, 0401, 0801	6-146
2208265Y	Terminal Elect PWB (replaces 999947)	0101, 1000, 0001, 5001, 5501, 0105, 0111, 0201, 0205, 0401, 0405	6-172
	Model 825 Major Subassemblies		
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2207421AA	Mechanism (replaced by 2206573, see above)	001, 0002	6-198
2207417C	RO Control Panel	0001, 0002, 0003	6-209
2207414B	Terminal Elect PWB w/Gnd Plane	0101, 0201, 0401, 0801	6-212
2207413AB	Terminal Elect PWB (replaced by 2208265, see above)	0101, 0201, 0401, 0801	6-215
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999687J	Ribbon Drive Assembly	0001	6-246
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2217374G	Universal Printhead Assembly	0001	6-255

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2361131A	Cable Assembly, Power (replaced by 2217354)	0001, 0002	6-264
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999791E	Cable Assembly, Printhead	0001	6-276
999735M	Cable Assy, Ribbon Rvrs/Paper Out	0001, 5001	6-278
2207634B	Cable Assy, Asynch/Synch EIA Data Set	0001, 5001	6-280
2217354G	Filter, ac Line (replaces 2361131)	N/A	6-282
994403H	Cable Assembly, Current Loop (Ext)	0001	6-290
2206536B	Cable Assembly, Current Loop Power	0001, 5001	6-292
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2207630E	Kit, Config/Protected ABM PROMs	0001, 0002, 0003	6-296
999734G	Kit, 20 mA Current Loop Interface (replaced by 2217360, see below)	0001	6-299
999836A	Kit, Device/Forms Control	0001	6-301
2206548B	Panel Assembly, EIA/Current Loop	0001	6-303
2206532F	PWB Assembly, Current Loop (replaced by 2217357, see below)	0001	6-305
2206534D	Shorting Plug, Current Loop	0001, 5001	6-308
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This listing is provided for cross-reference purposes.

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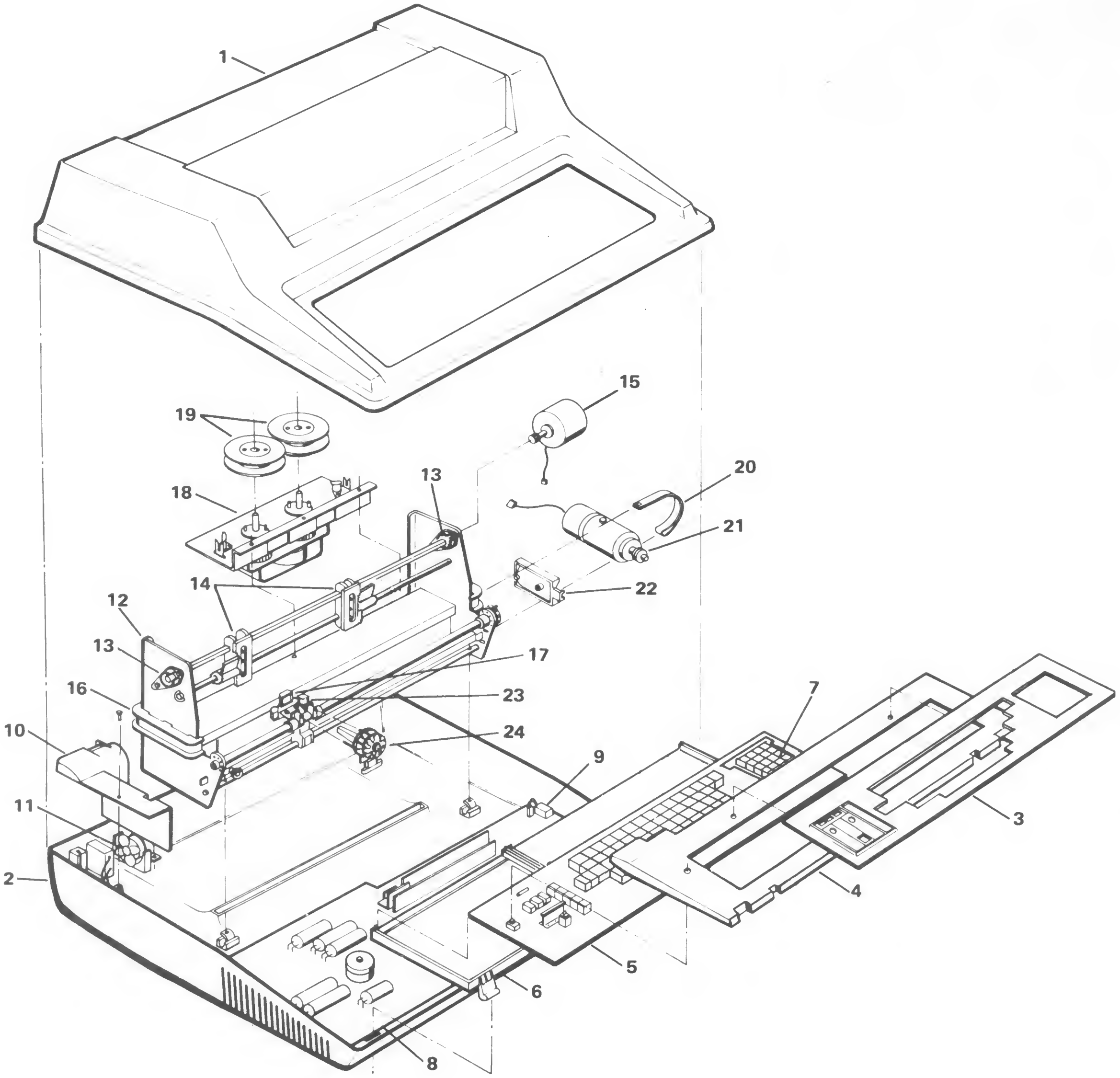

1. Terminal Cover
2. Terminal Base
3. Keyboard Bezel
4. Plenum,PWB
5. Keyboard,PWB
6. Card Frame
7. Numeric Keypad
8. Terminal Electronics
9. Kit,Battery,Package
10. Fan Plenum
11. Fan Assembly
12. Printer Mechanism Assembly
13. Paper Advance Bearing
14. Tractor,Paper,Precision
15. Motor Assembly,Paper Drive
16. Ribbon Guide
17. Nose Guide,Printhead
18. Ribbon Drive
19. Ribbon Spools
20. Strap,Motor
21. Carriage Drive Motor Assembly
22. Cradle Motor
23. Carriage Assembly,Printhead
24. Printhead Assembly,30V

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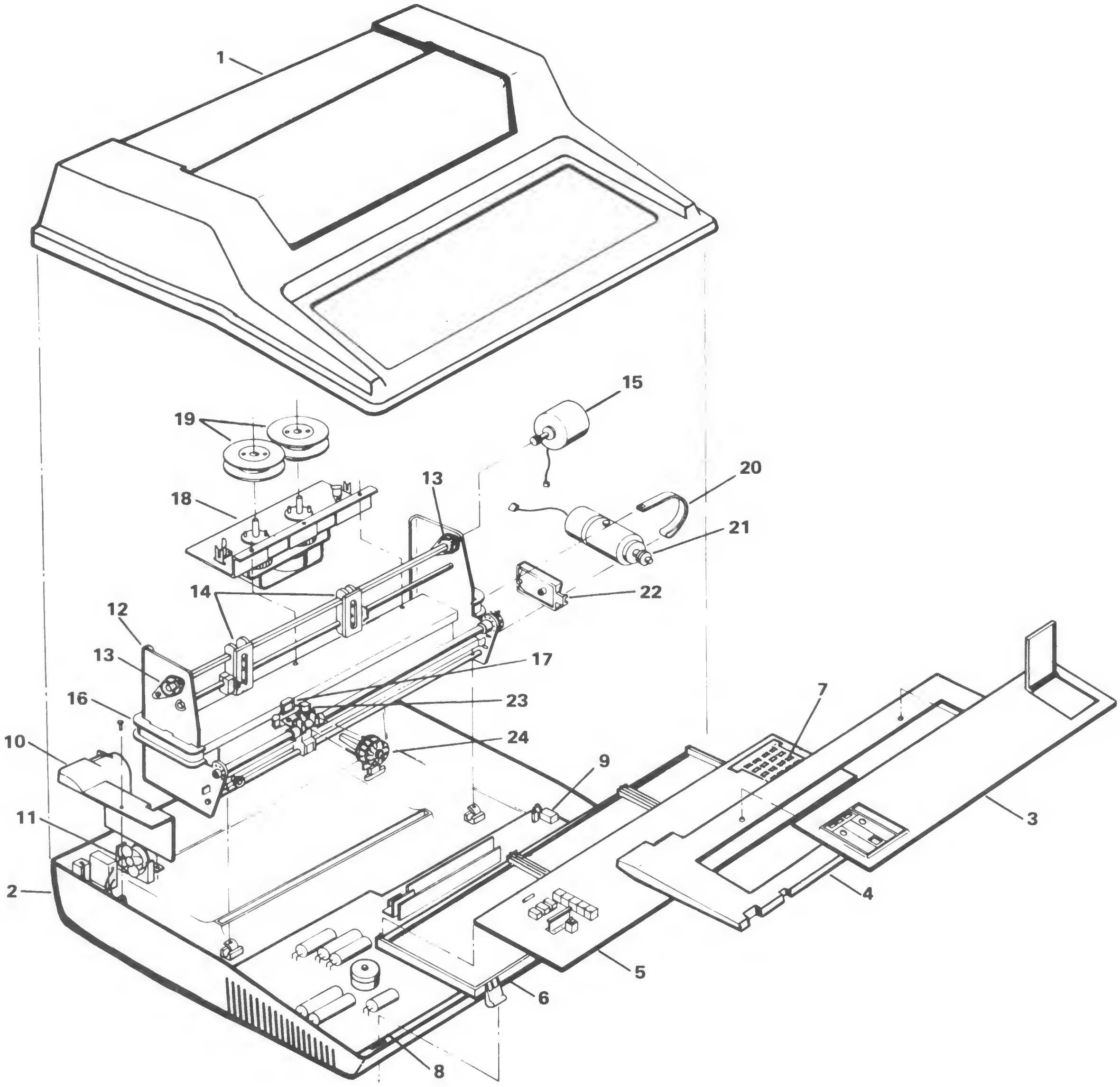
Figure 6-1. Model 820/825 KSR Exploded View



1. Terminal Cover
2. Terminal Base
3. Keyboard Bezel
4. Plenum,PWB
5. Keyboard,PWB
6. Card Frame
7. Operator's Keypad
8. Terminal Electronics
9. Kit,Battery,Package
10. Fan Plenum
11. Fan Assembly
12. Printer Mechanism Assembly
13. Paper Advance Bearing
14. Tractor,Paper,Precision
15. Motor Assembly,Paper Drive
16. Ribbon Guide
17. Nose Guide,Printhead
18. Ribbon Drive
19. Ribbon Spools
20. Strap,Motor
21. Carriage Drive Motor Assembly
22. Cradle Motor
23. Carriage Assembly,Printhead
24. Printhead Assembly,30V

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Figure 6-2. Model 820/825 RO Exploded View

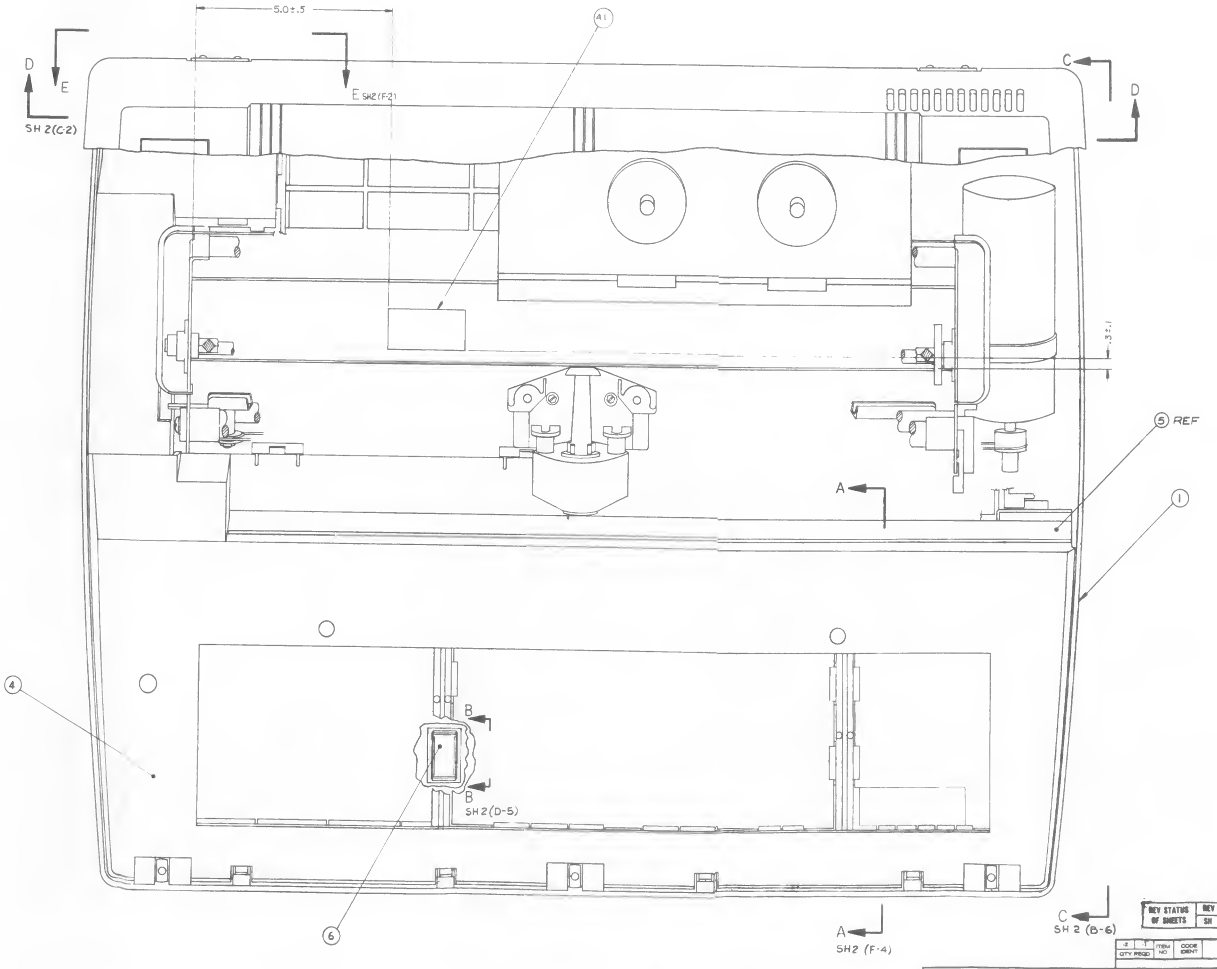
NOTES.

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRATCHES WHEN VIEWED FROM A DISTANCE OF 2 FEET AND HAVING A NORMAL VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.

2. MARK APPROPRIATE BLANKS ON COFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.

3. ~~INSTALL IDENTIFICATION LABEL (PN 236110?-1) TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~

4. A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE T.I. IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER



REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN 430972 9/5/78 D STARNES LM UPDATE	9/6/78	
	B	CN 43? 5/30/79 D STARNES LM UPDATE	9/6/78	
	C	CN 436354 7/26/78 D STARNES LM UPDATE	9/6/78	
	D	CN 436326 8/ /10 D STARNES LM UPDATE	9/6/78	
	E	CN 445359 [illegible] (1) DELETED ITEM'S FROM LM'S -0101 & -0201 IT 15 QTY WAS 1 PN WAS 999857-9701, IT 20 QTY WAS 2 PN WAS 999914-1, IT 21 QTY WAS 1 PN WAS 999914-2 IT 22 QTY WAS 2 PN WAS 999? [illegible] LM'S -0101 & 0201 ITEM 16 QTY WAS [illegible] (2) ADDED TO LM -0101 & 0201 ITEM 25 [illegible] ADDED TO LM -0101 IT 26 (3) CHG VIEW C-C BY DELETEING BREAKOUT & SECTION LINES 2 E-6 & ? SH 2 (4) DELETED SECTION E-E SH-2 2 A-5 (5) DELETED BALLOON 20, SECTION D-D SH-2 2 C-2	?/8/78	
	F	CN 445487 L.O. Sepeda 1) ADDED NOTE 1	11-9-78	
	G	CN439660 C Dawn 1) -101 & -201 DELE ITEM 7 QTY 1, PN999834-1	12/21/78	
	H	CN 445452 C Dawn LM'S -0101-&-0201 ADDED ITEM'S 27 PN999883-1 QTY REF. ITEM 28 PN999934-1 QTY 1, SH-2 Z 6-C VIEW C-C ADDED BALLOON 28	1/15/79	
	J	CN451020 J.R. Young (1) DELE ITEM 24 QTY 1 PN 993205-1	3-10-79	D Stanes
	K	CN450914 (C) S.Dodson (1) ADDED -0401	6/28/79	
	L	CN443630 (D) S.Dodson (1) ADDED ITEM 29 TO -0101, -0201 AND -0401	7/17/79	
	M	CN 459610 D [illegible] (1) ADDED NOTE 2 (2) ADDED FLAG NOTE TO ITEM 7, SHT 2	8/16/79	
	N	CN435647 (D) S.Dodson (1) ADDED ITEM 7 TO -0101 AND -0201 (2) REVISED PICTORIAL OF ITEM 7, (SECT D-D SH 2)	9/14/79	
	P	CN435670 (E) S.Dodson (1) ADDED ITEM 30 -0101, -0201 & -0401	10/12/79	
	R	CN433426 (C) S.Dodson (1) REVISED -0401 LM ITEM 25	10/12/79	
	T	CN433663 (C) S.Dodson (1) -101, -201, -401: ITEM 9 WAS 999854-9701, ITEM 28 WAS 999934-0001, DELETED ITEM 27	10/12/79	
	U	CN433676 (C) S.Dodson (1) -401: ITEM 25 WAS 996290-1	10/12/79	
	V	CN444008 (E) S.Dodson (1) -101 & -201: ITEM 8 WAS 996704-1	10/12/79	
	W	CN455625 (E) S.Dodson (1) -101, -201 & -401: ADDED ITEMS 27 AND 31 (2) ITEM 25 OF -401 WAS 996348-1	12/?/79	
	Y	CN433671 (D) [illegible] (1) REVISED PER EXTENSIVE ENG CHANGES	4-19-80	
	AA	CN452370 (D) S.Dodson (1) -801 LM TITLE WAS... PRNT-115V, JPN	5/20/80	
	AB	CN472347 (D) S.Dodson (1) -201 ADDED ITEM 32	10-10-80	
	AC	CN452619 (D) S.Dodson (1) ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80	
	AD	CN469186 (B) [illegible] (1) ADDED VIEW E-E (2) ON -0101 LM ADDED ITEM 40	6/10/81	W Anderson
	AE	CN465732 (D) S.Dodson (1) ADDED NOTE 4	3-6-81	
	AF	CN 477840 (D) [illegible] (1) ON ALL LMS: ITEM 23 QNTY WAS 1, ADDED ITEM 41	10-14-81	
	AG	CN486812 (C) [illegible] 1) ITEM 14 WAS DELETED FROM ALL LM'S	12-4-81	
	AH	CN507030 (D) PRUNYON (1) DEL ITEM 40 ON -0101 LM (2) SH2 SEC E-E DEL DIM 1.25±.25 AND .40±.10 (3) TITLE WAS 820 KSR TERMINAL	2-3-83	
	AJ	CN497288 (C) REX KARL 1) -201 LM: ITEM 25 WAS 996290-1 (2) -401 LM: ITEM 25 WAS 996695-1	5-16-83	JD Dodson

PART NUMBER	DESCRIPTION
999695-0801	820 KSR TERMINAL STD PRNT-JPN 115V
999695-0401	820 KSR TERMINAL, 220V, 10CPI (BPO)
999695-0201	820 KSR TERMINAL, 220V, 10 CPI
999695-0101	820 KSR TERMINAL, 115 V, 10 CPI

REV STATUS OF SHEETS	REV	AJ	AJ
	SH	1	2

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.006 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.750 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
999683	8740

APPLICATION

300

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02

MATERIAL

		DATE
DWN		11-22-77
CHK		8/4/78
ENGR		3 AUG 78
QA		8-4-78
APVD		8/3/78
CONTR NO		
DESIGN ACTIVITY RELEASE		

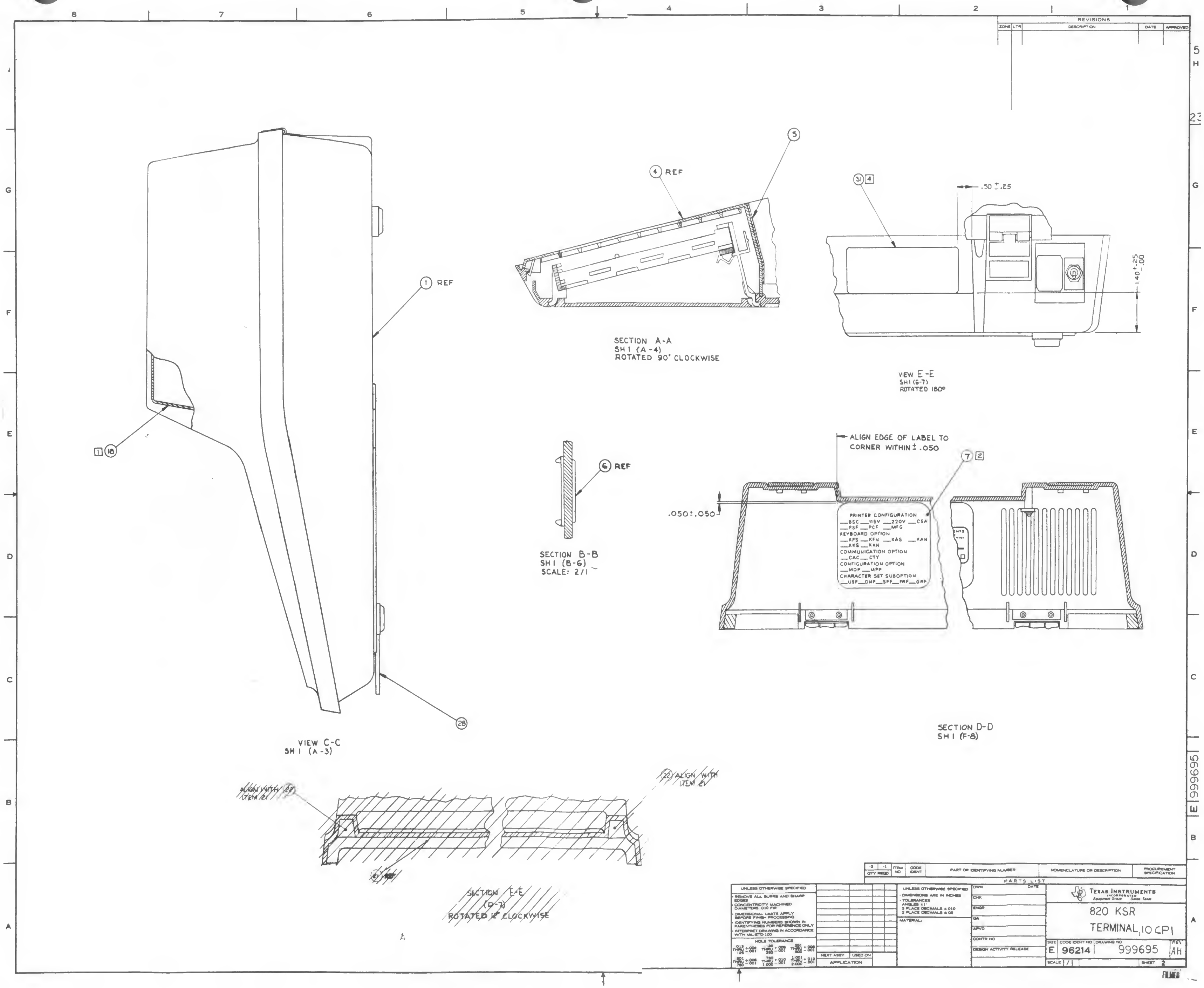
TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas Texas

820 KSR
TERMINAL, 10 CPI

SIZE	CODE IDENT NO	DRAWING NO
E	96214	999695

SCALE 1/1 SHEET 1 OF 2

E 999695

REVISIONS
ZONE
LTR
DESCRIPTION
DATE
APPROVED
① REF
□1 ⑱
㉘
VIEW C-C
SH I (A-3)
④ REF
⑤
SECTION A-A
SH I (A-4)
ROTATED 90° CLOCKWISE
③ 4
.50 ±.25
1.40 +.25 -.00
VIEW E-E
SH I (G-7)
ROTATED 180°
⑥ REF
SECTION B-B
SH I (B-6)
SCALE: 2/1
ALIGN EDGE OF LABEL TO CORNER WITHIN ±.050
⑦ 2
.050±.050
PRINTER CONFIGURATION
__BSC __115V __220V __CSA
__PSF __PCF __MFG
KEYBOARD OPTION
__KFS __KFN __KAS __KAN
__KKS __KKN
COMMUNICATION OPTION
__CAC __CTY
CONFIGURATION OPTION
__MDP __MPP
CHARACTER SET SUBOPTION
__USP __DNF __SPF __FRF __GRF
SECTION D-D
SH I (F-8)
ALIGN WITH ITEM 21
㉒ ALIGN WITH ITEM 21
SECTION E-E
(D-7)
ROTATED 12° CLOCKWISE
-2
-1
QTY REQD
ITEM NO
CODE IDENT
PART OR IDENTIFYING NUMBER
NOMENCLATURE OR DESCRIPTION
PROCUREMENT SPECIFICATION
PARTS LIST
UNLESS OTHERWISE SPECIFIED
· REMOVE ALL BURRS AND SHARP EDGES
· CONCENTRICITY MACHINED DIAMETERS .010 FIR
· DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
· IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
· INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100
HOLE TOLERANCE
.013 THRU .125 +.004 -.001
.126 THRU .250 +.006 -.001
.251 THRU .500 +.008 -.001
.501 THRU .750 +.008 -.001
.750 THRU 1.000 +.010 -.001
1.001 THRU 2.000 +.012 -.001
NEXT ASSY
USED ON
APPLICATION
UNLESS OTHERWISE SPECIFIED
· DIMENSIONS ARE IN INCHES
· TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02
MATERIAL:
DWN
DATE
CHK
ENGR
QA
APVD
CONTR NO
DESIGN ACTIVITY RELEASE
TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas Texas
820 KSR
TERMINAL, 10 CPI
SIZE
E
CODE IDENT NO
96214
DRAWING NO
999695
REV
AH
SCALE 1/1
SHEET 2
E 999695
FILMED

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION
0999695-0101	AH	820 KSR TERMINAL-STD PRNT-115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0001	00001.000	0999690-0101	820 TERMINAL,BASIC-115V,10CPI 1221-1690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2208225-9701	OPERATORS MANUAL - 820 KSR 1221-1225-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0025A			ITEM 26 MAY BE USED IN 080126-0-7889-008-GY	
0025B			PLACE OF ITEM 25 080126-0-7889-008-GY	
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 25 MAY BE USED IN 080126-0-7919-008-GY	
0026B			PLACE OF ITEM 26 080126-0-7919-008-GY	
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206558-0001	CARD CARRIER ASSY, 820 KSR 1221-1558-001	EA
0029	00000.000	2206541-0101	820 KSR, 115V 10 CPI E/D 1221-1541-000	EA
0029A			ITEM 29 MAY BE USED IN 1221-1541-000	
0029B			PLACE OF THIS UNIT IN ITS 1221-1541-000	
0029C			ENTIRETY 1221-1541-000	
0030	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0031	00001.000	2361102-0002	LABEL,ID,820 KSR-STD PRNT 1221-2302-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999695-0201    AH        820 KSR TERMINAL-STD PRNT-220V

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0001      00001.000  0999690-0201   820 TERMINAL,BASIC-220V,10 CPI          EA
                                    1221-3690-000
0004      00001.000  0999746-0001   PLENUM,PWB                              EA
                                    1255-1020-035
0005      00001.000  0999747-0001   INSULATOR, SOUND AIR PLENUM             EA

0006      00001.000  0999748-0001   COVER,TEST                              EA
                                    1255-1021-015
0007      00001.000  0994351-0002   LABEL,CONFIGURATION,820 KSR             EA
                                    1221-1351-000
0008      00001.000  0996241-0001   RIBBON,BLACK,40 YARD-SINGLE             EA
                                    000494-116-2801-163
0009      00001.000  2208225-9701   OPERATORS MANUAL - 820 KSR              EA
                                    1221-1225-000
0010      00000.020  0996472-0001   PAPER,CPO-1 PART PREMIUM                EA
                                    093287-1412RH
0012      00001.000  0999456-9701   MANUAL,INFORMATION REQUEST FORM         EA
                                    1225-9456-000
0016       REF       2362803-0001   PACKING ASSY 820 PRINTER                EA

0017      00001.000  0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS  EA
                                    1221-1860-000
0018      00001.000  0999713-0001   WINDOW, TERMINAL                        EA
                                    1255-1008-022
0023      00000.000  0994472-0001   SERVICE KIT,MODEL 810 PRINTER           EA
                                    1221-4472-000
0025      00001.000  0996290-0001   CORDSET,POWR-WEST EURO-RT ANGLE PLUG    EA

0027       REF       2207416-0001   INTERCONNECTION DIAGRAM,820/825         EA

0028      00001.000  2206558-0001   CARD CARRIER ASSY, 820 KSR              EA
                                    1221-1558-001
0029      00000.000  2206541-0201   820 KSR, 220V 10 CPI E/D                EA
                                    1221-0011-000
0029A                               ITEM 29 MAY BE USED IN
                                    1221-0011-000
0029B                               PLACE OF THIS UNIT IN ITS
                                    1221-0011-000
0029C                               ENTIRETY
                                    1221-0011-000
0030      00001.000  2207636-9701   INST. PROC., OMNI 800, MODEL 820 KSR    EA
                                    1221-1636-000
0031      00001.000  2361102-0003   LABEL,ID,820 KSR-STD PRNT               EA
                                    1221-2303-000
0032      00000.000  0996694-0001   CABLE ASSY,PWR,ELEC (INTERNATIONAL)     EA
                                    080126-64-1-075
0032A                               MAY BE USED IN PLACE OF
                                    080126-64-1-075
0032B                               ITEM 25
                                    080126-64-1-075
0041      00001.000  2360001-0001   TAG,BEARING                             EA
                                    7690-2000-000
9999      00000.000  0239999-9999   COST, SHRINKAGE                         EA
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
0999695-0401	AH	820 KSR TERMINAL-STD PRNT-BPO 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0001	00001.000	0999690-0401	820 TERMINAL,BASIC-220V,10 CPI (BPO) 1221-5690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2208225-9701	OPERATORS MANUAL - 820 KSR 1221-1225-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996695-0001	CABLE,POWER W/O PLUG (INTL.) 080126-107-2-093	EA
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206558-0001	CARD CARRIER ASSY, 820 KSR 1221-1558-001	EA
0029	00000.000	2206541-0401	820 KSR 220V,10 CPI,E/D (BPO) 1221-3541-000	EA
0029A			ITEM 29 MAY BE USED IN 1221-3541-000	
0029B			PLACE OF THIS UNIT IN ITS 1221-3541-000	
0029C			ENTIRETY 1221-3541-000	
0030	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0031	00001.000	2361102-0004	LABEL,ID,820 KSR-STD PRNT,BPO 1221-2304-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION
0999695-0801	AH	820 KSR TERMINAL-STD PRNT-JPN 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0001	00001.000	0999690-0801	820 TERMINAL,BASIC-115V,10CPI,KATAKANA 1221-0000-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2208225-9701	OPERATORS MANUAL - 820 KSR 1221-1225-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0025A			ITEM 26 MAY BE USED IN 080126-0-7889-008-GY	
0025B			IN PLACE OF ITEM 25 080126-0-7889-008-GY	
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 25 MAY BE USED IN 080126-0-7919-008-GY	
0026B			IN PLACE OF ITEM 26 080126-0-7919-008-GY	
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206558-0001	CARD CARRIER ASSY, 820 KSR 1221-1558-001	EA
0031	00001.000	2361102-0006	LABEL,ID,820 KSR-STD PRNT,JPN 1221-2306-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

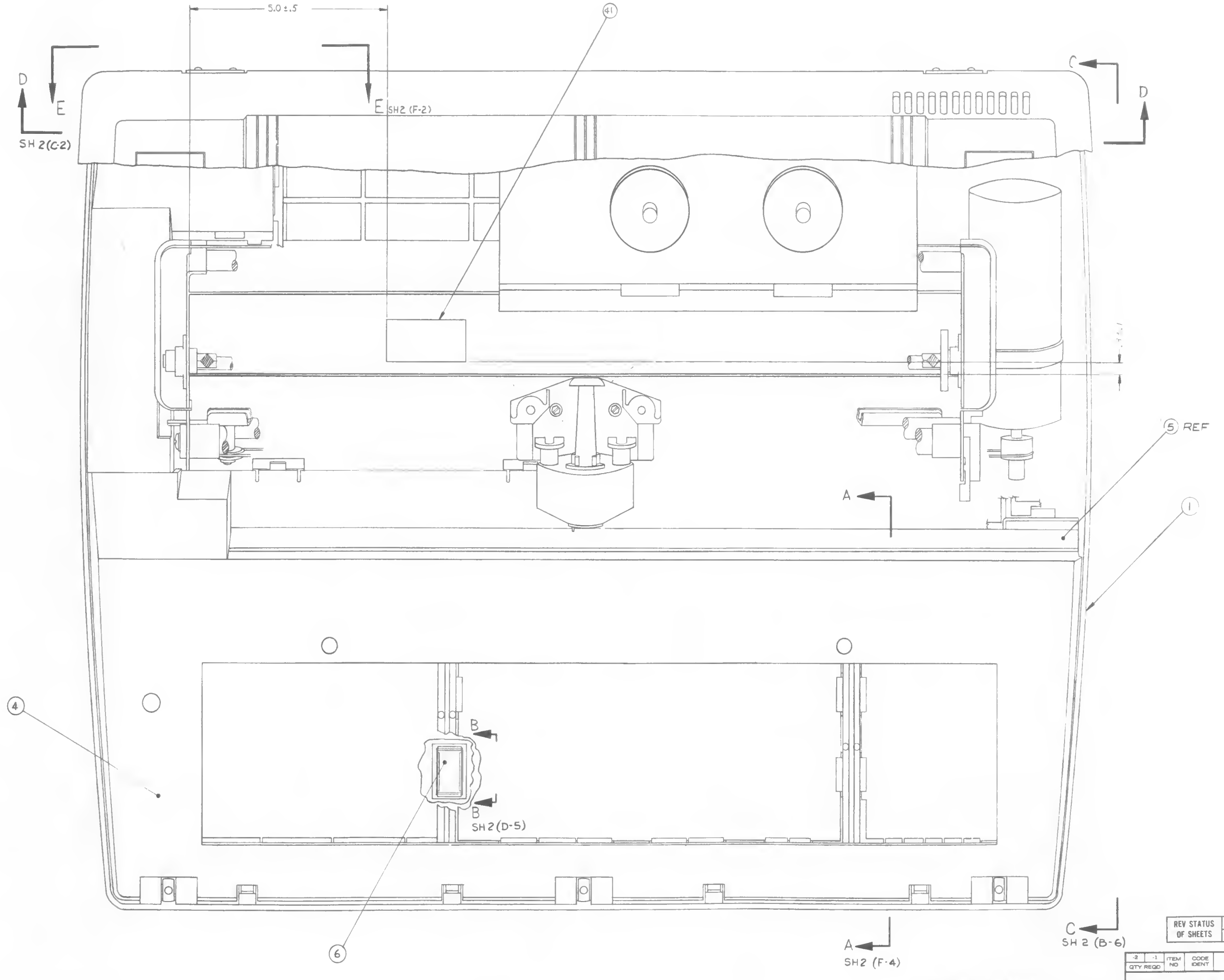
NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRATCHES WHEN VIEWED FROM A DISTANCES OF 2 FEET AND HAVING A NORMAL VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOTCANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.

2. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER

3. ~~INSTALL IDENTIFICATION LABEL, [illegible] LEFT INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING~~

4. A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE T.I. IDENTIFICATION LABEL WHEN SO STATED ON THE SALES ORDER



ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN436323 7/26/78 D.STARNES LM UP DATE	8/4/78	
	B	CN436326 7/31/78 D.STARNES LM UP DATE	8/4/78	
	C	CN 436371 Joe John Rico (1) DELETED: ITEMS FROM LM'S -0101 & -0201 IT: 15 QTY WAS 1, PN WAS 999857-9701, IT: 20 QTY WAS 2, PN WAS 999914-1, IT: 21 QTY WAS 1, PN WAS 999914-2 IT: 22 QTY WAS 2 PN WAS 999908-1 (2) CHG LM'S -0101 & -0201 IT: 16 QTY WAS 1 (3) ADDED: TO LM -0101 IT: 25 & 25A, IT: 26 & 26A (4) ADDED TO LM -0210 IT: 26 (5) CHG VIEW C-C SH-2 Z D-7 & E6 BY DELETING BREAK OUT & SECTION LINES ALSO DELETING SECTION E-E FROM SH-2 (6) DELETED: BALLOON ⑳ FROM SEC D-D SH-2 Z C-2 (CHANGES 5 & 6 REFLECT CHANGES ON LM)	10/21/78	
	D	CN445486 L.O. Sepeda 1) ADDED NOTE 1	11-9-78	
	E	CN439660 C. Dawn -101 & -201 DELE ITEM 7 QTY 1, PN 999834-1	12/12/78	
	F	CN445453 C. Dawn LM'S -0101 & -0201 ADDED ITEM 27 PN 999883-1 QTY REF, ITEM 28 PN 999934-1 QTY 1, 21 SH2 Z 6C VIEW C-C ADDED BALLOON 28	1/15/79	
	G	CN451019 C. Dawn LM-0101 & -0201 DELETED ITEM 24 WAS PN 993205-1	3-26-79	D Starnes
	H	CN450914 (C) S Dodson (1) ADDED -0401	6/28/79	S Dodson
	J	CN443629 (D) S Dodson (1) ADDED ITEM 29 TO -0101, -0201 AND -0401	7/17/79	S Dodson
	K	CN459610 (D) K Nguyen 1 ADDED NOTE 2 (2) ADDED FLAG NOTE TO ITEM 7 ON SHT 2	8/16/79	S Dodson
	L	CN435670 (E) S Dodson (1) ADDED ITEM 30 TO ALL LM'S	10/17/79	
	M	CN435646 (D) S Dodson (1) ADDED ITEM 7 TO -0101 & -0201	10/17/79	
	N	CN433879 (C) S Dodson (1) ITEM 26 WAS 996290-1, -401 LM	10/17/79	
	P	CN433663 (C) S Dodson (1) N -0101 -0201 -0401 LMS: ITEM 9 WAS 999854-9701, ITEM 28 WAS 999934-0001, DELETED ITEM 27	10/23/79	S Dodson
	R	CN433676 (C) S Dodson (1) -0401 ITEM 26 WAS 996290-1	10/17/79	
	T	CN444008 (E) S Dodson (1) -0101 & -0201, ITEM 8 WAS 996704-0001	10/12/79	
	U	CN455625 (E) S Dodson (1) -101, -201 & -401: ADDED ITEM 31 AND ITEM 27 (2) -401: ITEM 26 WAS 996348-1	12-12-79	S Dodson
	V	CN433670 (D) JV Clark (1) REVISED PER EXTENSIVE ENG CHANGES	2-28-80	S Dodson
	W	CN452371 (D) S Dodson (1) REVISED -801 DESC.	4-25-80	S Dodson
	Y	CN472348 (D) S Dodson (1) -201: ADDED ITEM 32	10-10-80	S Dodson
	AA	CN452619 (D) S Dodson (1) ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80	S Dodson
	AB	CN469186 (B) [illegible] (1) REVISED PER EXTENSIVE ENG CHANGES	2/10/81	K Anderson
	AC	CN465732 (D) S Dodson (1) ADDED NOTE 4	3-6-81	S Dodson
	AD	CN477840 (D) S Howard (1) QNTY OF IT 23 WAS 1.0, ADDED IT 41.	10/14/81	
	AE	CN486812 (C) PR 1) ITEM 14 WAS DELETED FROM ALL LM'S	12 9 81	S Dodson
	AF	CN507029 (D) RUNYON (1) DEL ITEM 40 ON -0101 LM (2) SH2 VIEW E-E DEL DIM'S 1.25±.25 AND .40±.10 (3) T.L. WAS 820 KSR TERM	2-3-83	
	AG	CN497291 (C) PRUNYON (1) ON -0201 LM, ITEM 26 P/N WAS 0996290-0001 (2) ON -0401, ITEM 26 P/N WAS 0996695-0001	4-25-83	

PART NUMBER	DESCRIPTION
999686-0801	820 KSR TERMINAL-COMP PR-JFN 115V
999686-0401	820 KSR TERMINAL 220V, 10/16 CPI (BPO)
999686-0201	820 KSR TERMINAL 220V, 10/16 CPI
999686-0101	820 KSR TERMINAL 115V, 10/16 CPI

REV STATUS OF SHEETS	REV	AG	AF		
	SH	1	2		

QTY REQD -2	QTY REQD -1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.012 THRU .125 +.004 −.001	.126 THRU .250 +.006 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.750 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
999683	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02

MATERIAL:

		DATE
DWN		11-22-77
CHK		8/4/78
ENGR		3 AUG 78
QA		8-4-78
APVD		8/3/78
CONTR NO		8/4
DESIGN ACTIVITY RELEASE		8/4/78

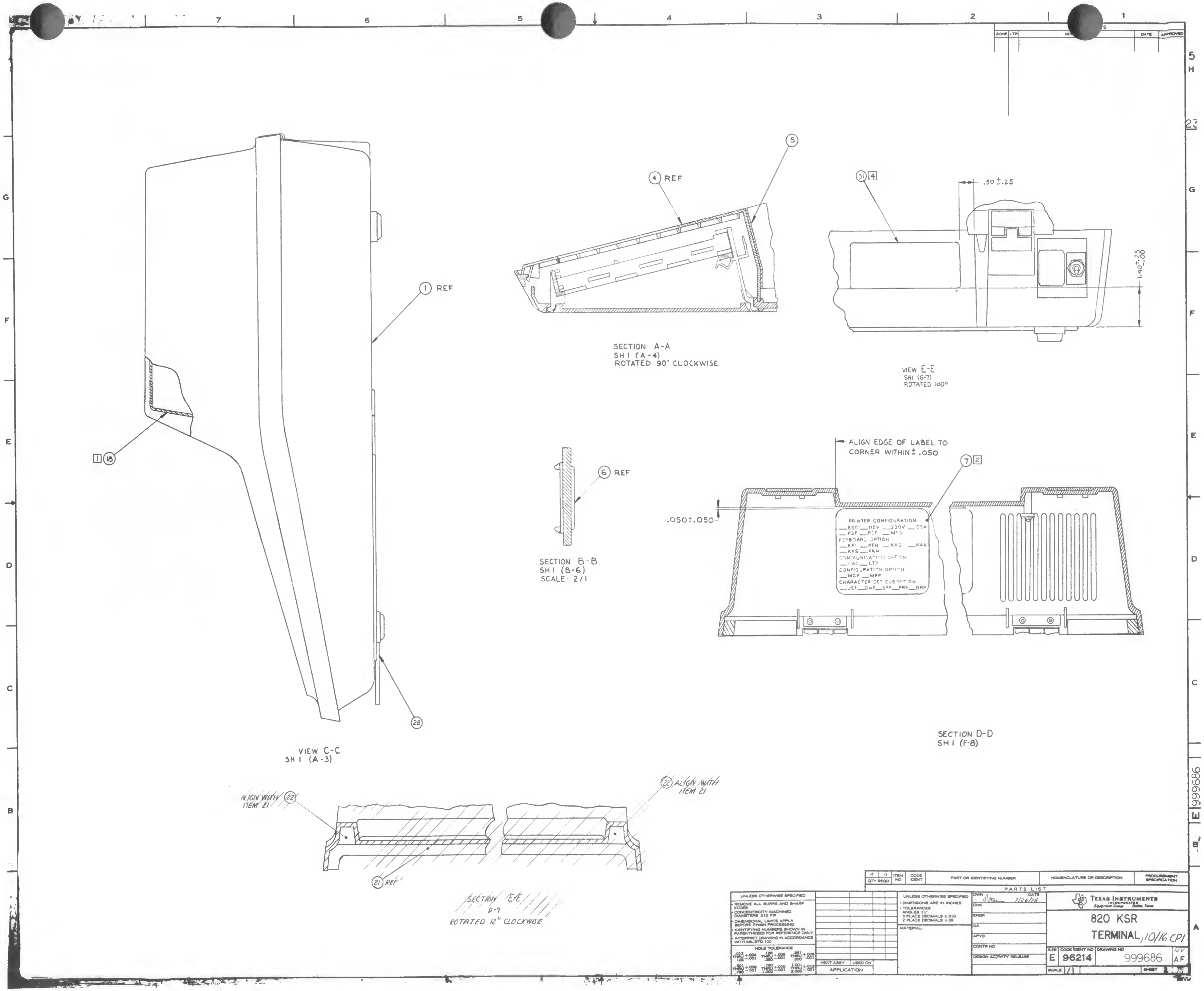
TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas, Texas

820 KSR
TERMINAL, 10/16 CPI

SIZE	CODE IDENT NO	DRAWING NO
E	96214	999686

SCALE 1/1 SHEET 1 OF 2

E 999686



-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.006 −.001	.251 THRU .500 +.008 −.001
.501 THRU .750 +.008 −.001	.750 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

NEXT ASSY | USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02

MATERIAL:

DWN D Stevens DATE 7/26/78
CHK
ENGR
QA
APVD
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas, Texas

820 KSR
TERMINAL, 10/16 CPI

SIZE	CODE IDENT NO	DRAWING NO	REV
E	96214	999686	AF

SCALE 1/1 SHEET

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999686-0101	AF	820 KSR TERMINAL-COMP PR-115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0999690-0102	820 TERMINAL,BASIC-115V,10/16CPI 1221-2690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2208225-9701	OPERATORS MANUAL - 820 KSR 1221-1225-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0025A			ITEM 26 MAY BE USED IN 080126-0-7889-008-GY	
0025B			PLACE OF ITEM 25 080126-0-7889-008-GY	
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 25 MAY BE USED IN 080126-0-7919-008-GY	
0026B			PLACE OF ITEM 26 080126-0-7919-008-GY	
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206558-0001	CARD CARRIER ASSY, 820 KSR 1221-1558-001	EA
0029	00000.000	2206542-0101	820 KSR, 115V 10/16 CPI, E/D 1221-1542-000	EA
0029A			ITEM 29 MAY BE USED IN 1221-1542-000	
0029B			PLACE OF THIS UNIT IN IT'S 1221-1542-000	
0029C			ENTIRETY 1221-1542-000	
0030	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0031	00001.000	2361102-0007	LABEL,ID,820 KSR-COMP PR 1221-2307-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
0999686-0201	AF	820 KSR TERMINAL-COMP PR-220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0001	00001.000	0999690-0202	820 TERMINAL,BASIC-220V,10/16 CPI 1221-4690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2208225-9701	OPERATORS MANUAL - 820 KSR 1221-1225-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0026	00001.000	0996290-0001	CORDSET,POWR-WEST EURO-RT ANGLE PLUG	EA
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206558-0001	CARD CARRIER ASSY, 820 KSR 1221-1558-001	EA
0029	00000.000	2206542-0101	820 KSR, 115V 10/16 CPI, E/D 1221-1542-000	EA
0029A			ITEM 29 MAY BE USED IN 1221-1542-000	
0029B			PLACE OF THIS UNIT IN IT'S 1221-1542-000	
0029C			ENTIRETY 1221-1542-000	
0030	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0031	00001.000	2361102-0008	LABEL,ID,820 KSR-COMP PR 1221-2308-000	EA
0032	00000.000	0996694-0001	CABLE ASSY,PWR,ELEC (INTERNATIONAL) 080126-64-1-075	EA
0032A			MAY BE USED IN PLACE OF 080126-64-1-075	
0032B			ITEM 26 080126-64-1-075	
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999686-0401    AF        820 KSR TERMINAL-COMP PR-BPO  220V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   0999690-0402   820 TERMINAL,BASIC-220V,10/16 CPI (BPO)   EA
                                     1221-6690-000
0004      00001.000   0999746-0001   PLENUM,PWB                                EA
                                     1255-1020-035
0005      00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM               EA

0006      00001.000   0999748-0001   COVER,TEST                                EA
                                     1255-1021-015
0007      00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR               EA
                                     1221-1351-000
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE               EA
                                     000494-116-2801-163
0009      00001.000   2208225-9701   OPERATORS MANUAL - 820 KSR                EA
                                     1221-1225-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                  EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM           EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                  EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS    EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                          EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER             EA
                                     1221-4472-000
0026      00001.000   0996695-0001   CABLE,POWER W/O PLUG (INTL.)              EA
                                     080126-107-2-093
0027       REF        2207416-0001   INTERCONNECTION DIAGRAM,820/825           EA

0028      00001.000   2206558-0001   CARD CARRIER ASSY, 820 KSR                EA
                                     1221-1558-001
0029      00000.000   2206542-0101   820 KSR, 115V 10/16 CPI, E/D              EA
                                     1221-1542-000
0029A                                ITEM 29 MAY BE USED IN
                                     1221-1542-000
0029B                                PLACE OF THIS UNIT IN IT'S
                                     1221-1542-000
0029C                                ENTIRETY
                                     1221-1542-000
0030      00001.000   2207636-9701   INST. PROC., OMNI 800, MODEL 820 KSR      EA
                                     1221-1636-000
0031      00001.000   2361102-0009   LABEL,ID,820 KSR-COMP PR BPO              EA
                                     1221-2309-000
0041      00001.000   2360001-0001   TAG,BEARING                               EA
                                     7690-2000-000
9999      00000.000   0239999-9999   COST, SHRINKAGE                           EA
```

LIST OF MATERIALS

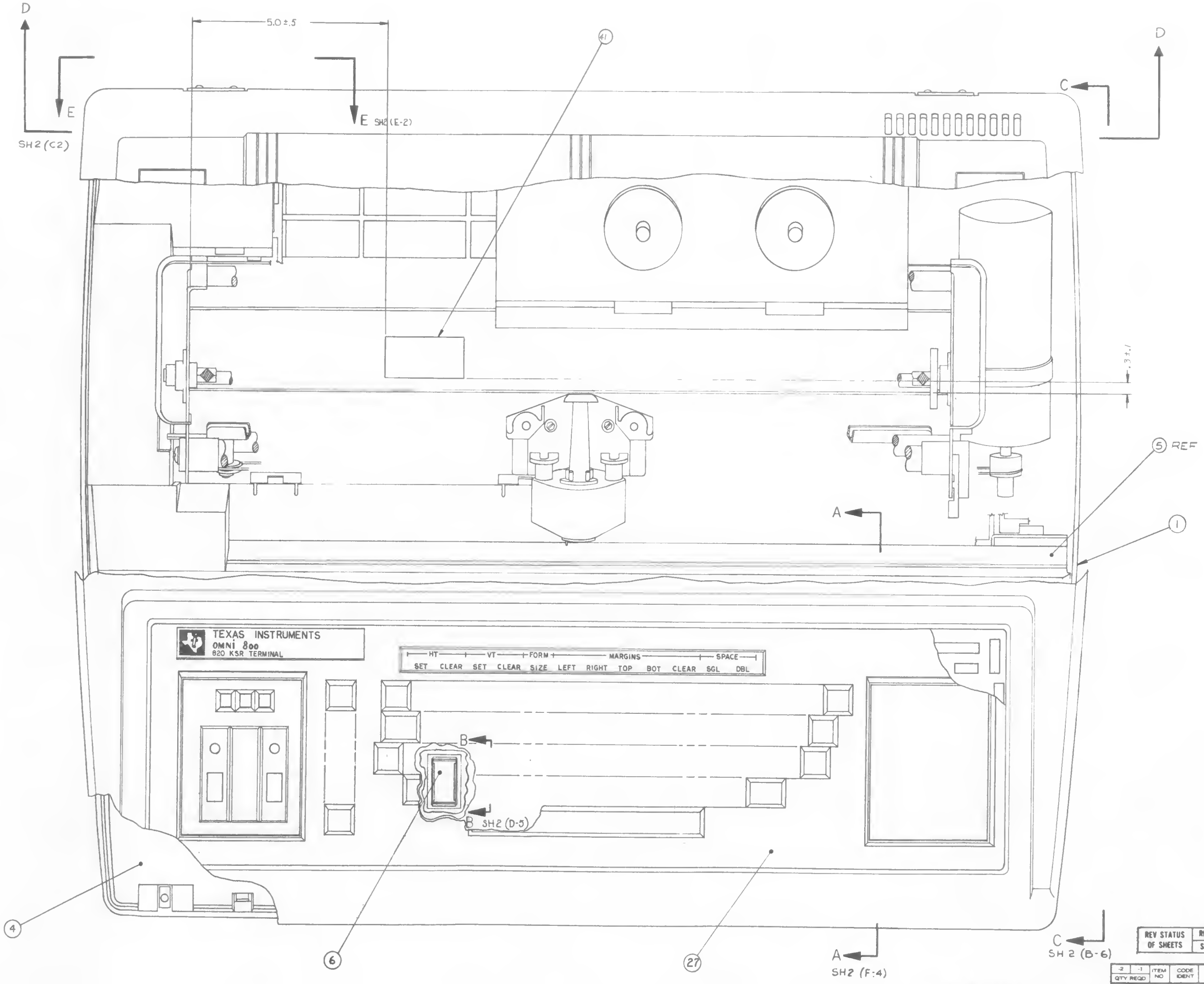
02/05/83

PART NUMBER	REV	DESCRIPTION
0999686-0801	AF	820 KSR TERMINAL-COMP PR-JPN 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0001	00001.000	0999690-0802	820 TERMINAL,BASIC-115V,10/16CPI,KATAKAN 1221-0000-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2208225-9701	OPERATORS MANUAL - 820 KSR 1221-1225-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0025A			ITEM 26 MAY BE USED IN 080126-0-7889-008-GY	
0025B			PLACE OF ITEM 25. 080126-0-7889-008-GY	
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 25 MAY BE USED IN 080126-0-7919-008-GY	
0026B			PLACE OF ITEM 26. 080126-0-7919-008-GY	
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206558-0001	CARD CARRIER ASSY, 820 KSR 1221-1558-001	EA
0031	00001.000	2361102-0011	LABEL,ID,820 KSR-COMP PR JPN 1221-2311-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRATCHES WHEN VIEWED FROM A DISTANCE OF 2 FEET AND HAVING A NORMAL VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.
2. INSTALL ITEM 28 IN SOCKET U12 ON THE PWB ASSEMBLY
3. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER AS PER DWG. PLACE THE CARBON COPY WITH THE SALES ORDER
4. ~~INSTALL IDENTIFICATION LABEL, PN 2361102, TO THE LEFT INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~
5. A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE T.I. IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER



REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN438049	4/10/79	
	B	CN439815 FORMAL RELEASE	4/1-/79	
	C	CN443631(D) SDodson (1) ADDED ITEMS 29 AND 30	6/28/79	SDodson
	D	CN433432(C) SDodson (1) ADDED -0201 AND -0401	8/17/79	SDodson
	E	CN 435631 (D) [illegible] (1) ADDED [illegible] -0101	9/20/79	SDodson
	F	CN459611(D) SDodson (1) ADDED NOTE 3	10/12/79	SDodson
	G	CN435670 (E) SDodson (1) ALL LMs: ADDED ITEM 33	10/12/79	SDodson
	H	CN433663(C) SDodson (1) ALL LM'S: ITEM 9 WAS 999854-9701, ITEM 7 WAS 999934-1, ITEM 28 WAS 999845-1, DELETED ITEM 29 (2) -0401 LM. ITEM 31 WAS 999849-1	10/12/79	SDodson
	J	CN444008(E) SDodson (1) -0101 LM: ITEM 8 WAS 996704-1	10/12/79	SDodson
	K	CN434064(C) SDodson (1) ON -0201 & -0401 ITEM 27 WAS 999691-0102	10/29/79	SDodson
	L	CN433692(D) SDodson (1) -0201 & -0401 ITEM 24 WAS 993205-1	12/12/79	SDodson
	M	CN455625(E) [illegible] (1) -101, -201 -401: ADDED ITEM 29 & 34; ITEM 25 WAS 996348-1	2-12-80	SDodson
	N	CN 433668 (D) J.E. Murany REVISED PER EXTENSIVE ENG CHANGES	4-2-80	SDodson
	P	CN 452369(D) D Andersen (1) REV TITLE OF -0801	4/25/80	SDodson
		[illegible] -101 AND -801: ITEM 24 WAS 0993205-1		
	T	CN452619 (D) SDodson (1) ON ALL LMS ITEM 16 WAS 2206802-1	12-1-80	SDodson
	U	CN469186(B) M Kuehn (1) ADDED VIEW E-E (2) ON -0101 LM, ADDED ITEM 40	2/10/81	
	V	CN465732(D) SDodson (1) ADDED NOTE 5	3-6-81	SDodson
	W	CN477840 (D) D Hruska (1) QNTY OF ITEM 23 WAS 1 (2) ADDED ITEM 41	10-14-81	M Hruska
	Y	CN486812 (C) PRunyon 1) ITEM 14 WAS DELETED FROM ALL LM'S	12-9-81	SDodson
	AA	CN507028 (D) PRUNYON (1) ON -0101 LM DEL ITEM 40 (2) SH2 VIEW E DEL DIM'S 1.25±.25 AND .40±.10 AND ITEM 40 CALLOUT	2-3-83	
	AB	CN497288(C) PRUNYON (1) ON -0201 LM ITEM 25 P/N WAS 0996290-0001 (2) ON -0401 LM ITEM 25 P/N WAS 0996695-0001	4-26-83	

PART NUMBER	DESCRIPTION
999685-0801	820 KSR TERMINAL PACKAGE-JPN 115V
999685-0401	820 KSR PACKAGE, 220V, 10/16 CPI (BPO)
999685-0201	820 KSR PACKAGE, 220V, 10/16 CPI
999685-0101	820 KSR PACKAGE, 115V, 10/16 CPI

REV STATUS OF SHEETS	REV	AB	AA		
	SH	1	2		

QTY REQD -2	QTY REQD -1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.006 −.001	.251 THRU .500 +.008 −.001
.501 THRU .750 +.008 −.001	.750 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
999683	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  - ANGLES ±1°
  - 3 PLACE DECIMALS ±.010
  - 2 PLACE DECIMALS ±.03

MATERIAL

		DATE
DWN	M Hagedon	3-23-79
CHK	Dave Stamm	4-17-79
ENGR	J. Davis	4/18/79
QA	[illegible]	
APVD	Jim Davis	4/18/79
	[illegible]	4/8/79
DESIGN ACTIVITY	[illegible]	4/8/79

TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas Texas

820 KSR PACKAGE,
10/16 CPI

SIZE	CODE IDENT NO	DRAWING NO
E	962[illegible]	999685

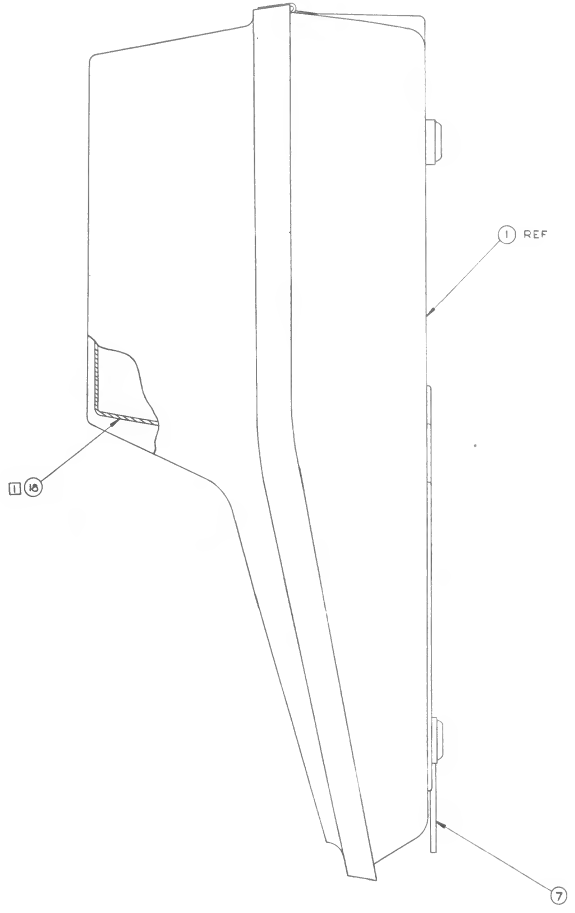
SCALE 1/[illegible] SHEET 1 OF 2

30

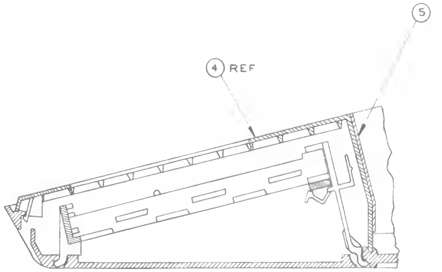
LM

E 999685

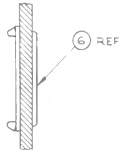
ZONE	LTR	REVISIONS DESCRIPTION	DATE	APPROVED



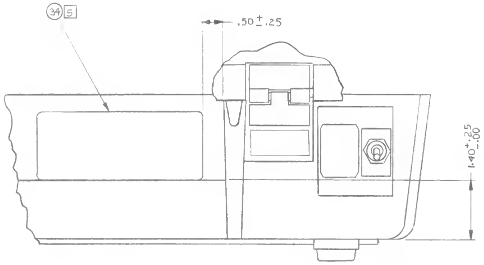
VIEW C-C
SH 1 (A-3)



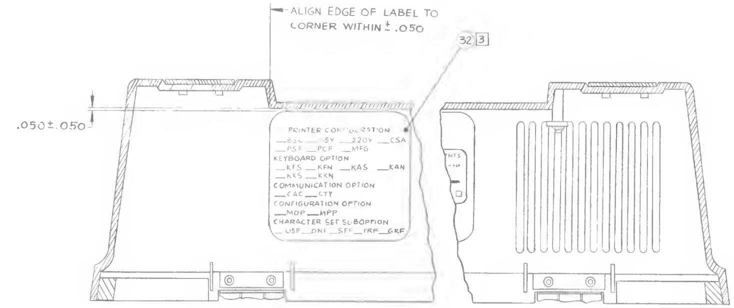
SECTION A-A
SH 1 (A-4)
ROTATED 90° CLOCKWISE



SECTION B-B
SH 1 (B-6)
SCALE: 2/1



VIEW E-E
SH1 (G-7
ROTATED 180°



PRINTER CONFIGURATION
__BSC __5V __220V __CSA
__PSF __PCF __MFG
KEYBOARD OPTION
__KFS __KFN __KAS __KAN
__KKS __KKN
COMMUNICATION OPTION
__CAC __CTY
CONFIGURATION OPTION
__MDP __MPP
CHARACTER SET SUBOPTION
__USF __DNF __SFF __FRF __GRF

SECTION D-D
SH 1 (F-8)

QTY REQD 2	QTY REQD 1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE
.013 THRU .125 +.004 -.001
.126 THRU .250 +.006 -.001
.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001
.750 THRU 1.000 +.010 -.001
1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
8740	

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± 02

MATERIAL:

DWN DATE
CHK
ENGR
QA
APVD
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas Texas

SIZE	CODE IDENT NO	DRAWING NO	REV
E	96214	999685	AA

SCALE 1/1 SHEET 2

E 999685 2

FILMED

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..........................
0999685-0101	AA	820 KSR TERMINAL PACKAGE-115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..........................	UM
0001	00001.000	0999690-0102	820 TERMINAL,BASIC-115V,10/16CPI 1221-2690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2206558-0001	CARD CARRIER ASSY, 820 KSR 1221-1558-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2208225-9701	OPERATORS MANUAL - 820 KSR 1221-1225-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0024	00001.000	2207634-0001	CABLE ASSY,ASYNCH/SYNCH EIA 1221-1634-037	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0025A			ITEM 26 MAY BE USED IN 080126-0-7889-008-GY	
0025B			PLACE OF ITEM 25 080126-0-7889-008-GY	
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 25 MAY BE USED IN 080126-0-7919-008-GY	
0026B			PLACE OF ITEM 26 080126-0-7919-008-GY	
0027	00001.000	0999691-0102	KEYBOARD,FULL ASCII W/NUMERIC PAD 1221-2691-001	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0030	00000.000	2206543-0101	820 PACK, 115V 10/16 CPI, E/D 1221-1543-000	EA
0030A			ITEM 30 MAY BE USED IN 1221-1543-000	
0030B			PLACE OF THIS UNIT IN IT'S 1221-1543-000	
0030C			ENTIRETY 1221-1543-000	
0032	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0033	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0034	00001.000	2361102-0012	LABEL,ID,820 KSR PACKAGE 1221-2312-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999685-0201	AA	820 KSR TERMINAL PACKAGE-220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0999690-0202	820 TERMINAL,BASIC-220V,10/16 CPI 1221-4690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2206558-0001	CARD CARRIER ASSY, 820 KSR 1221-1558-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2208225-9701	OPERATORS MANUAL - 820 KSR 1221-1225-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0024	00001.000	2207634-0001	CABLE ASSY,ASYNCH/SYNCH EIA 1221-1634-037	EA
0025	00001.000	0996290-0001	CORDSET,POWR-WEST EURO-RT ANGLE PLUG	EA
0027	00001.000	0999691-0302	KEYBOARD,INTL ASCII W/NUMERIC PAD 1221-0000-000	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0030	00000.000	2206543-0101	820 PACK, 115V 10/16 CPI, E/D 1221-1543-000	EA
0030A			ITEM 30 MAY BE USED IN 1221-1543-000	
0030B			PLACE OF THIS UNIT IN IT'S 1221-1543-000	
0030C			ENTIRETY 1221-1543-000	
0032	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0033	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0034	00001.000	2361102-0013	LABEL,ID,820 KSR PACKAGE 1221-2313-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999685-0401    AA        820 KSR TERMINAL PACKAGE-BPO  220V

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION........................... UM

0001      00001.000   0999690-0402    820 TERMINAL,BASIC-220V,10/16 CPI (BPO)   EA
                                      1221-6690-000
0004      00001.000   0999746-0001    PLENUM,PWB                                EA
                                      1255-1020-035
0005      00001.000   0999747-0001    INSULATOR, SOUND AIR PLENUM               EA

0006      00001.000   0999748-0001    COVER,TEST                                EA
                                      1255-1021-015
0007      00001.000   2206558-0001    CARD CARRIER ASSY, 820 KSR                EA
                                      1221-1558-001
0008      00001.000   0996241-0001    RIBBON,BLACK,40 YARD-SINGLE               EA
                                      000494-116-2801-163
0009      00001.000   2208225-9701    OPERATORS MANUAL - 820 KSR                EA
                                      1221-1225-000
0010      00000.020   0996472-0001    PAPER,CPO-1 PART PREMIUM                  EA
                                      093237-1412RH
0012      00001.000   0999456-9701    MANUAL,INFORMATION REQUEST FORM           EA
                                      1225-9456-000
0016        REF       2362803-0001    PACKING ASSY 820 PRINTER                  EA

0017      00001.000   0999860-9701    MANUAL, RIBBON & PAPER RECOMMENDATIONS    EA
                                      1221-1860-000
0018      00001.000   0999713-0001    WINDOW, TERMINAL                          EA
                                      1255-1008-022
0023      00000.000   0994472-0001    SERVICE KIT,MODEL 810 PRINTER             EA
                                      1221-4472-000
0024      00001.000   2207634-0001    CABLE ASSY,ASYNCH/SYNCH EIA               EA
                                      1221-1634-037
0025      00001.000   0996695-0001    CABLE,POWER W/O PLUG (INTL.)              EA
                                      080126-107-2-093
0027      00001.000   0999691-0302    KEYBOARD,INTL ASCII W/NUMERIC PAD         EA
                                      1221-0000-000
0028      00001.000   0999836-0001    DEVICE/FORMS CONTROL OPTION               EA
                                      1221-1836-001
0029        REF       2207416-0001    INTERCONNECTION DIAGRAM,820/825           EA

0030      00000.000   2206543-0101    820 PACK, 115V 10/16 CPI, E/D             EA
                                      1221-1543-000
0030A                                 ITEM 30 MAY BE USED IN
                                      1221-1543-000
0030B                                 PLACE OF THIS UNIT IN IT'S
                                      1221-1543-000
0030C                                 ENTIRETY
                                      1221-1543-000
0031      00001.000   2206525-0001    CHAR SET,ENGLISH ASCII,820 KSR            EA
                                      1221-1525-001
0032      00001.000   0994351-0002    LABEL,CONFIGURATION,820 KSR               EA
                                      1221-1351-000
0033      00001.000   2207636-9701    INST. PROC., OMNI 800, MODEL 820 KSR      EA
                                      1221-1636-000
0034      00001.000   2361102-0014    LABEL,ID,820 KSR PACKAGE BPO              EA
                                      1221-2314-000
0041      00001.000   2360001-0001    TAG,BEARING                               EA
                                      7690-2000-000
9999      00000.000   0239999-9999    COST, SHRINKAGE                           EA
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999685-0801    AA        820 KSR TERMINAL PACKAGE-JPN   115V

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION.......................... UM

0001      00001.000   0999690-0802   820 TERMINAL,BASIC-115V,10/16CPI,KATAKAN  EA
                                     1221-0000-000
0004      00001.000   0999746-0001   PLENUM,PWB                                EA
                                     1255-1020-035
0005      00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM               EA

0006      00001.000   0999748-0001   COVER,TEST                                EA
                                     1255-1021-015
0007      00001.000   2206558-0001   CARD CARRIER ASSY, 820 KSR                EA
                                     1221-1558-001
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE               EA
                                     000494-116-2801-163
0009      00001.000   2208225-9701   OPERATORS MANUAL - 820 KSR                EA
                                     1221-1225-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                  EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM           EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                  EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS    EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                          EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER             EA
                                     1221-4472-000
0024      00001.000   2207634-0001   CABLE ASSY,ASYNCH/SYNCH EIA               EA
                                     1221-1634-037
0025      00001.000   0996239-0001   CORD SET,3-PIN PWR-DOMESTIC BLACK         EA
                                     080126-0-7889-008-GY
0025A                                ITEM 26 MAY BE USED IN
                                     080126-0-7889-008-GY
0025B                                PLACE OF ITEM 25
                                     080126-0-7889-008-GY
0026      00000.000   0996289-00[illegible]   CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP   EA
                                     080126-0-7919-008-GY
0026A                                ITEM 25 MAY BE USED IN
                                     080126-0-7919-008-GY
0026B                                PLACE OF ITEM 26
                                     080126-0-7919-008-GY
0027      00001.000   0999859-0002   KYBD,KATAKANA,W/NUM PAD,820               EA
                                     1221-2859-000
0028      00001.000   0999836-0001   DEVICE/FORMS CONTROL OPTION               EA
                                     1221-1836-001
0029       REF        2207416-0001   INTERCONNECTION DIAGRAM,820/825           EA

0032      00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR               EA
                                     1221-1351-000
0034      00001.000   2361102-0016   LABEL,ID,820 KSR PACKAGE JPN              EA
                                     1221-2316-000
0041      00001.000   2360001-0001   TAG,BEARING                               EA
                                     7690-2000-000
9999      00000.000   0239999-9999   COST, SHRINKAGE                           EA
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NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRATCHES WHEN VIEWED FROM A DISTANCE OF 2 FEET AND HAVING A NORMAL VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.

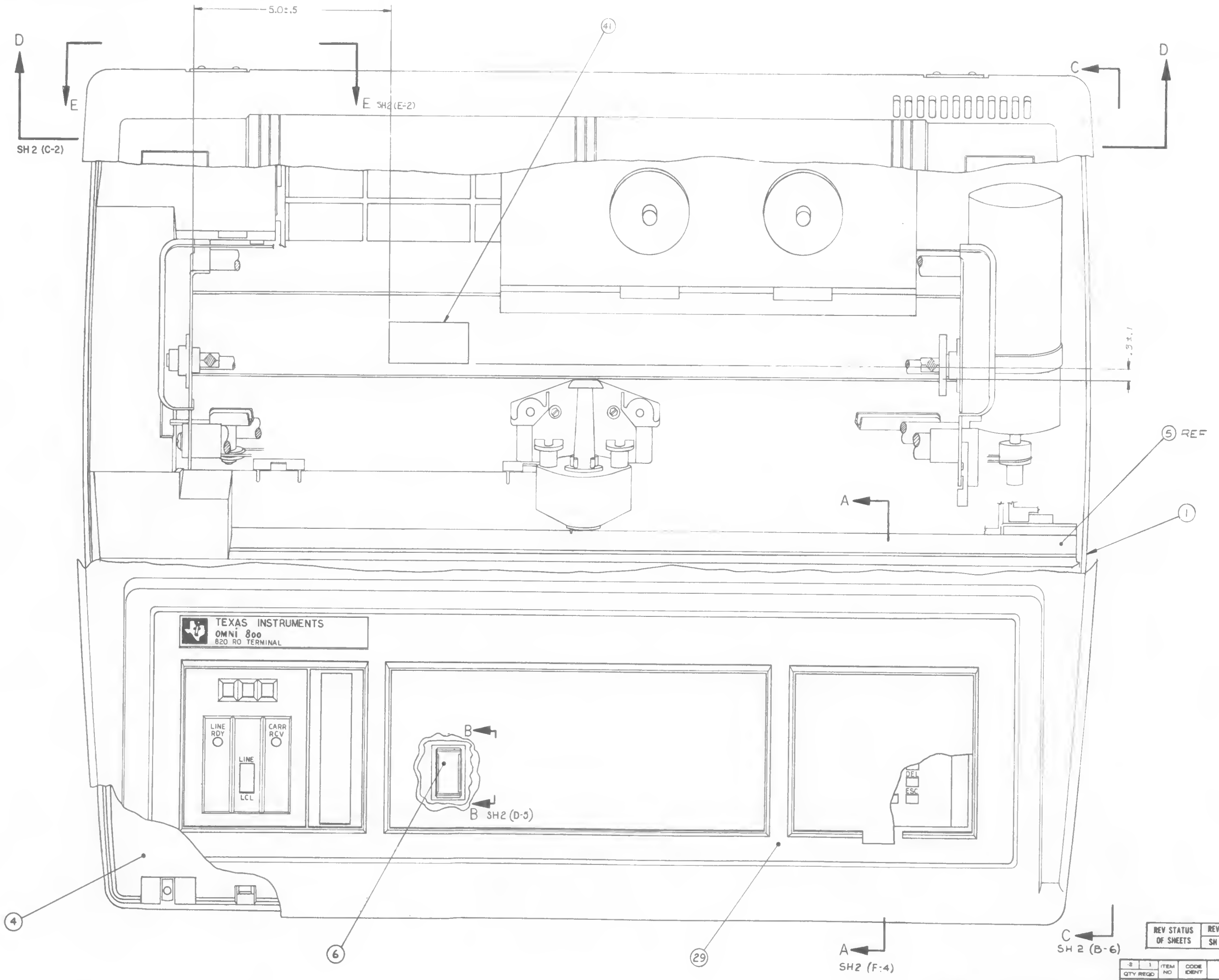
2. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.

3. ~~INSTALL IDENTIFICATION LABEL, PN 2361102, TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~

4. INSTALL THE ONE BIT ROM, PN LU 2361105-0001 IN SOCKET XU12 IN MACHINES THAT DO NOT HAVE THE DFC (MFG) OPTION:
THIS ROM WILL BE REQUIRED ON 820 RO BOARDS THAT CONTAIN,
A.) ROM ADAPTERS BOARDS
OR
B.) ROM 2207625-0003 THRU-0008 IN SOCKETS XU9 AND XU10.
THE ONE BIT ROM WILL NO LONGER BE REQUIRED WHEN NEW ROMS 2207625-0009 & -0010 BECOME AVAILABLE

5. *A CUSTOMERS SPECIAL LABEL MAY BE SUBSTITUTED FOR THE TI IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER.*

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	CN 433882 C D... (1) LM-0101 AND -0201 DELETED ITEM 24 WAS PN 993205-1 @T) 1 (2) CREATED -0401 LM	7/26/79	D. Stamm
B	CN 4336? [illegible] LM-0101, [illegible] ITEM P/N WAS 099 [illegible] 9701 ITEM 26 P/N WAS 0999934-1 ON LM-0101, -0201, -0401	[illegible]	[illegible]
C	CN455665 (D) S Dobson (1) ITEM 8 OF -101 AND -201 WAS 996704-1	1-9-80	S Dobson
D	CN455626 (E) S Dobson (1) -101, -201 + -401: ADDED ITEM 30, ITEM 27 WAS 999883-0001 (2) -401: ITEM 25 WAS 996348-0001	3-1-80	S Dobson
E	CN433669 (D) J.E. Murany (1) REVISED PER EXTENSIVE ENG. CHANGES	4-5-80	[illegible]
F	CN452313 (E) J HIGH 380" HAM (1) ON ALL DASH NOS ADDED ITEM 31	5/20/80	S Dobson
G	CN45 [illegible]	9/11/80	[illegible]
H	CN472347 (D) S Dobson (1) -201 ADDED ITEM 32	10-10-80	S Dobson
J	CN452619 (D) S Dobson (1) ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80	S Dobson
K	CN469186 (B) M Kuhn (1) ADDED VIEW E-E (2) ON -0101 LM, ADDED ITEM 40	[illegible]	[illegible]
L	CN465732 (D) [illegible] ADDED NOTE 5.	3/?/-1	[illegible]
M	CN 477840 (D) D Howard (1) QNTY OF IT23 WAS 1 (2) ADDED ITEM 41	10-14-81	[illegible]
N	CN 486812 (C) David Howard (1) DEL IT 14 FROM ALL LM'S.	12-9-81	S Dobson
P	CN 507026 (D) PRUNYUN (1) DEL ITEM 40 ON -0101 LM (2) SH2 VIEW E-E DEL 1.25±.25 AND .40±.10 DIM	2-3-83	[illegible]
R	CN497288 (C) PRUNYUN (1) ON -0201 LM ITEM 25 P/N WAS 099 [illegible] (2) ON -0401 LM ITEM 25 P/N WAS 0996695-0001	4-26-83	[illegible]



PART NUMBER	DESCRIPTION
999975 - 0801	820 RO PRINTER-STD PRINT-115V, JPN
999975 -0401	820 RO PRINTER, 10 CPI, 220V (BPO
999975-0201	820 RO PRINTER, 10 CPI, 220V
999975-0101	820 RO PRINTER, 10 CPI, 115V

REV STATUS OF SHEETS					
REV	R	F			
SH	1	2			

-2	1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.006 −.001	.251 THRU .500 +.008 −.001
.501 THRU .750 +.008 −.001	.750 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
999683	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02

MATERIAL:

DWN M Hagedorn 3-22-79
CHK Dave Stalmer 4/24/79
ENGR J Davis 5/1/79
QA [illegible]
APVD Jim Davis 5/1/79
[illegible] 5/1/79
DESIGN ACTIVITY Thomas Villa... 5/1/79

TEXAS INSTRUMENTS INCORPORATED Equipment Group Dallas Texas

820 RO PRINTER,
10 CPI

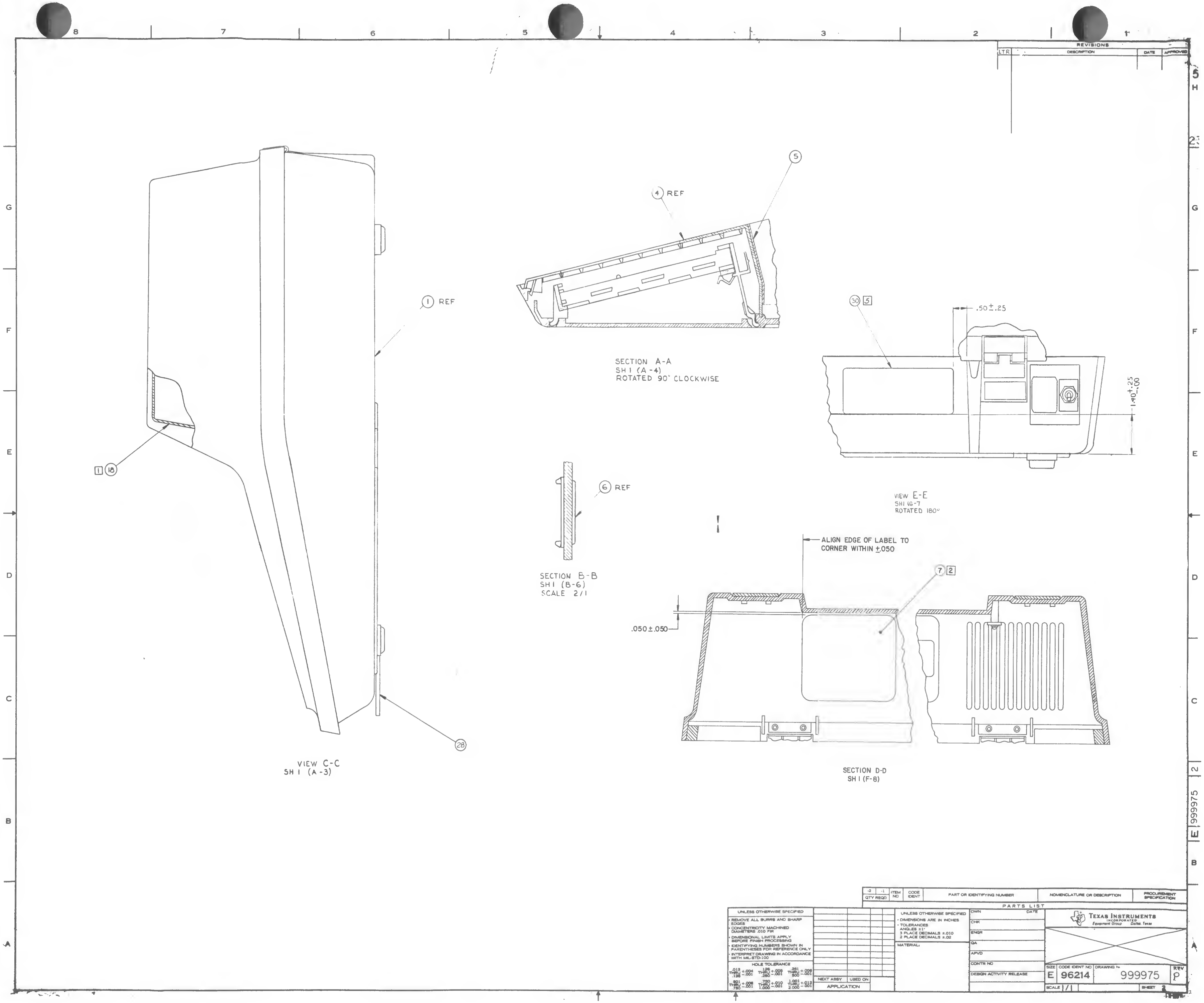
SIZE E CODE IDENT NO 96214 DRAWING NO 999975

SCALE 1/1 SHEET 1 OF 2

30

LM

E 999975


VIEW C-C
SH I (A-3)
1 REF
1 18
28
SECTION A-A
SH I (A-4)
ROTATED 90° CLOCKWISE
4 REF
5
SECTION B-B
SH I (B-6)
SCALE 2/1
6 REF
VIEW E-E
SH I G-7
ROTATED 180°
30 5
.50±.25
1.40+.25 -.00
ALIGN EDGE OF LABEL TO
CORNER WITHIN ±.050
7 2
.050±.050
SECTION D-D
SH I (F-8)
REVISIONS
LTR
DESCRIPTION
DATE
APPROVED
E 999975 2
QTY REQD
ITEM NO
CODE IDENT
PART OR IDENTIFYING NUMBER
NOMENCLATURE OR DESCRIPTION
PROCUREMENT SPECIFICATION
PARTS LIST
UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .010 FIR
DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100
HOLE TOLERANCE
NEXT ASSY
USED ON
APPLICATION
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02
MATERIAL:
DWN
DATE
CHK
ENGR
QA
APVD
CONTR NO
DESIGN ACTIVITY RELEASE
TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas, Texas
SIZE E
CODE IDENT NO 96214
DRAWING No 999975
REV P
SCALE 1/1
SHEET 2

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999975-0101	P	820 RO PRINTER-STD PRNT-115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.............................	UM
0001	00001.000	0999690-0101	820 TERMINAL,BASIC-115V,10CPI 1221-1690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2206553-9701	OPERATORS MANUAL - 820 RO 1221-1553-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0025A			ITEM 25 MAY BE USED AS AN 080126-0-7889-008-GY	
0025B			ALTERNATE FOR ITEM 26 080126-0-7889-008-GY	
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED AS AN 080126-0-7919-008-GY	
0026B			ALTERNATE FOR ITEM 25 080126-0-7919-008-GY	
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206563-0001	CARD CARRIER ASSY,820 RO 1221-1563-001	EA
0030	00001.000	2361102-0017	LABEL,ID,820 RO-STD PRNT 1221-2317-000	EA
0031	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
0999975-0201	P	820 RO PRINTER-STD PRNT-220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0001	00001.000	0999690-0201	820 TERMINAL,BASIC-220V,10 CPI 1221-3690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2206553-9701	OPERATORS MANUAL - 820 RO 1221-1553-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996290-0001	CORDSET,POWR-WEST EURO-RT ANGLE PLUG	EA
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206563-0001	CARD CARRIER ASSY,820 RO 1221-1563-001	EA
0030	00001.000	2361102-0018	LABEL,ID,820 RO-STD PRNT 1221-2318-000	EA
0031	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0032	00000.000	0996694-0001	CABLE ASSY,PWR,ELEC (INTERNATIONAL) 080126-64-1-075	EA
0032A			MAY BE USED IN PLACE OF 080126-64-1-075	
0032B			ITEM 25 080126-64-1-075	
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999975-0401	P	820 RO PRINTER-STD PRNT-BPO 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0999690-0401	820 TERMINAL,BASIC-220V,10 CPI (BPO) 1221-5690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2206553-9701	OPERATORS MANUAL - 820 RO 1221-1553-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996695-0001	CABLE,POWER W/O PLUG (INTL.) 080126-107-2-093	EA
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206563-0001	CARD CARRIER ASSY,820 RO 1221-1563-001	EA
0030	00001.000	2361102-0019	LABEL,ID,820 RO-STD PRNT BPO 1221-2319-000	EA
0031	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999975-0801	P	820 RO PRINTER-STD PRNT-JPN 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0999690-0801	820 TERMINAL,BASIC-115V,10CPI,KATAKANA 1221-0000-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2206553-9701	OPERATORS MANUAL - 820 RO 1221-1553-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999975-0801     P        820 RO PRINTER-STD PRNT-JPN    115V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM              EA
                                     1225-9456-000
0016        REF       2362803-0001   PACKING ASSY 820 PRINTER                     EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS       EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                             EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER                EA
                                     1221-4472-000
0025      00001.000   0996289-0001   CORD SET,3-PIN PWR-DOMESTIC BLACK            EA
                                     080126-0-7889-008-GY
0025A                                ITEM 25 MAY BE USED AS AN
                                     080126-0-7889-008-GY
0025B                                ALTERNATE FOR ITEM 26
                                     080126-0-7889-008-GY
0026      00000.000   0996289-0002   CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP      EA
                                     080126-0-7919-008-GY
0026A                                ITEM 26 MAY BE USED AS AN
                                     080126-0-7919-008-GY
0026B                                ALTERNATE FOR ITEM 25
                                     080126-0-7919-008-GY
0027        REF       2207416-0001   INTERCONNECTION DIAGRAM,820/825              EA

0028      00001.000   2206563-0001   CARD CARRIER ASSY,820 RO                     EA
                                     1221-1563-001
0030      00001.000   2361102-0021   LABEL,ID,820 RO-STD PRNT JPN                 EA
                                     1221-2321-000
0031      00001.000   2361114-9701   INSTAL INSTR OMNI 800,820/825 RO             EA
                                     1221-1114-000
0041      00001.000   2360001-0001   TAG,BEARING                                  EA
                                     7690-2000-000
9999      00000.000   0239999-9999   COST, SHRINKAGE                              EA
```

NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRATCHES WHEN VIEWED FROM A DISTANCE OF 2 FEET AND HAVING A NORMAL VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.

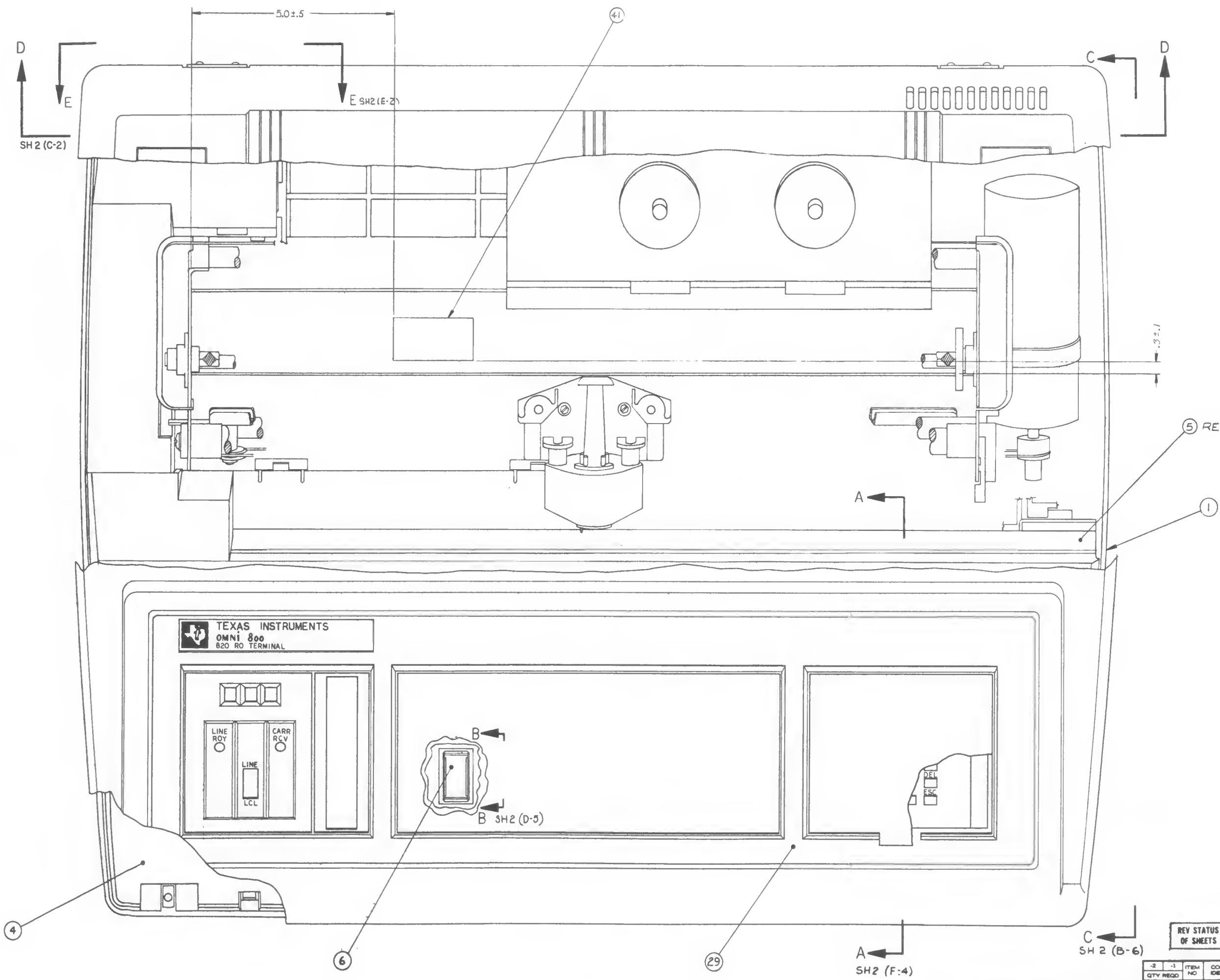
2. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.

3. ~~INSTALL IDENTIFICATION LABEL, PN 236002, TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~

4. INSTALL THE ONE BIT ROM, PN LU2361105-0001, IN SOCKET XU12 IN MACHINES THAT DO NOT HAVE THE DFC (MFG) OPTION: THIS ROM WILL BE REQUIRED ON 820 RO BOARDS THAT CONTAIN.
   A.) ROM ADAPTOR BOARDS
   OR
   B.) ROM 2207625-003 THRU-0008 IN SOCKETS XU9 AND XU10.

   THE ONE BIT ROM WILL NO LONGER BE REQUIRED WHEN NEW ROMS 2207625-0009 & -0010 BECOME AVAILABLE.

5. *A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE TI IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER.*



REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
A	CN433821 C Davis ITEM 26 QTY 0 WAS QTY 1	7-10-79	D. Starnes
B	CN 433861 REKHA SETH 1) LM -0101 AND -0201 DELE ITEM 24, ADD LM -0401	9-7-79	D Starnes
C	CN433681 GOULET 1) LM-0101;0201 DELE ITEM 24 P/N 993205-1 (2) LM-0101;0201, -0401, ITEM 9 P/N WAS 999854-9701, QTY 1 (3) LM-0101;0201, -0401, ITEM 28, P/N WAS 999934-1 QTY 1	10-18-79	D. Starnes
D	CN455665 (D) [illegible] ITEM 8 OF -101 AND 201 WAS 996704-1	1-9-80	[illegible]
E	CN455626 (E) S Dodson (1) -101, -201 & -401: ADDED ITEM 30, ITEM 27 WAS 999883-1 (2) -401: ITEM 26 WAS 996348-1	2-28-80	S Dodson
F	CN 460052 (D) J. E MURANY (1) REVISED PER EXTENSIVE ENG CHANGES	4-15-80	S Dodson
G	CN 452313 (E) J. HIGGINBOTHAM (1) ON ALL DASH NOS ADDED ITEM 31	5/20/80	[illegible]
H	CN457558 (E) [illegible] LM -0801 ITEM 29 [illegible]	9/17/80	[illegible]
J	CN472348 (D) S Dodson (1) -201 ADDED ITEM 32	10-[illegible]-80	[illegible]
K	CN452619 (D) S Dodson (1) ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80	S Dodson
L	CN469186 (B) [illegible] (1) ADDED VIEW E-E (2) ON -0101 LM, ADDED ITEM 40	[illegible]	[illegible]
M	CN465732 (D) [illegible] (1) ADDED NOTE 5.	[illegible]	[illegible]
N	CN 477840 (D) D Howard (1) QNTY OF IT 23 WAS 1.0, ADDED IT. 41.	[illegible]	[illegible]
P	CN486812 (C) PRunyon 1) ITEM 14 WAS DELETED FROM ALL LM'S	12-9-[illegible]	[illegible]
R	CN 507015 (D) PRUNYON (1) ON -0101 LM DEL ITEM 40 (2) IN VIEW E DEL DIM'S 1.25±.25 AND .40±.10, ALSO REV PICTORIAL	2-3-83	[illegible]
T	CN497291 (C) PRUNYON (1) ON -0201 LM ITEM 26 P/N WAS 0996290-0001 (2) ON -0401 LM ITEM 26 P/N WAS 0996695-0001	[illegible]	[illegible]

PART NUMBER	DESCRIPTION
999980-0801	820 RO PRINTER-COMP PR-115V, JPN
999980-0401	820 RO PRINTER (220V) BPO
999980-0201	820 RO PRINTER (220V)
999980-0101	820 RO PRINTER (115V)

REV STATUS OF SHEETS			
REV	T	R	
SH	1	2	

-2 QTY REQD	-1 QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

NEXT ASSY	USED ON
999683	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .03

MATERIAL:

DWN M Hagedorn 3-22-79
CHK Dave Starnes 4-17-79
ENGR J Davis 4/18/79
QA Crawford 4/4/79
APVD Jim Davis 4/18/79

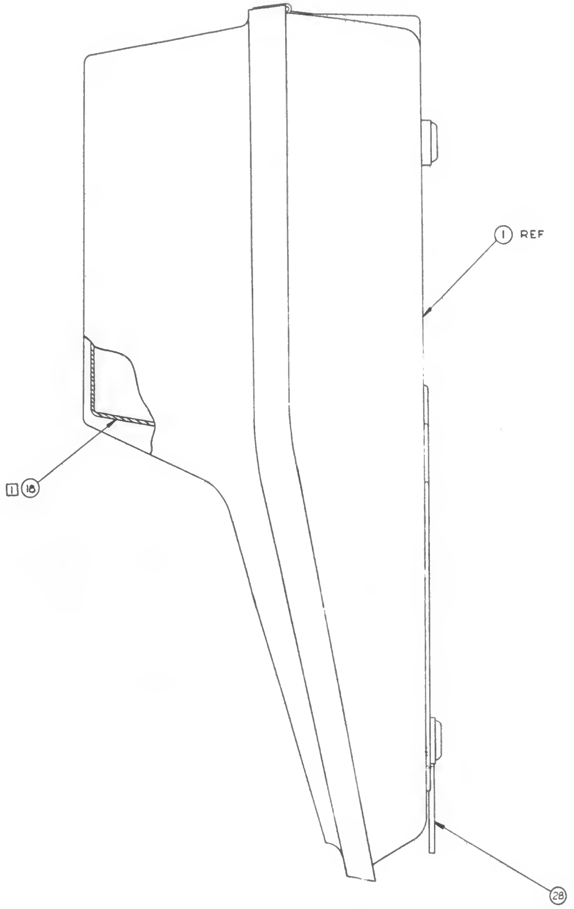
TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas Texas

820 RO
PRINTER, 10/16 CPI

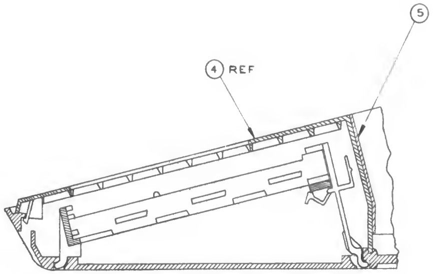
SIZE E
DRAWING NO 999980
SCALE
SHEET 1 OF 2

30

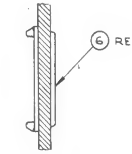
ZONE	LTR	REVISIONS	DATE	APPROVED



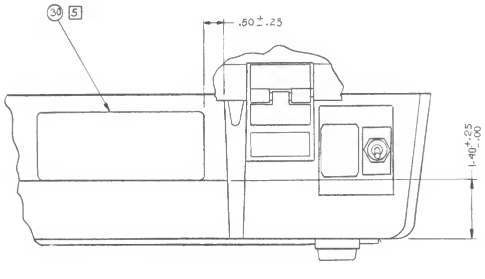
VIEW C-C
SH I (A-3)



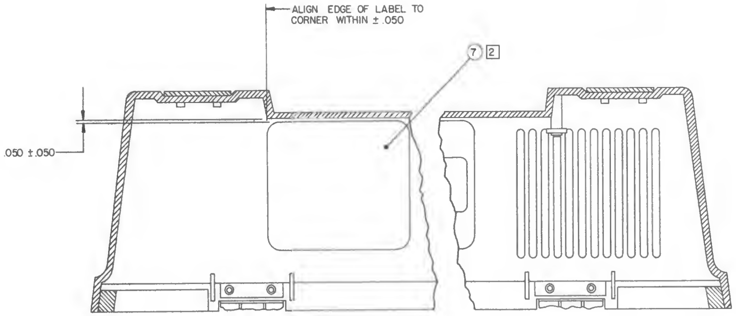
SECTION A-A
SH I (A-4)
ROTATED 90° CLOCKWISE



SECTION B-B
SH I (B-6)
SCALE: 2/1



VIEW E-E
SH I (G-7)
ROTATED 180°



SECTION D-D
SH I (F-8)

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE
.013 THRU .125 +.004 -.001
.126 THRU .250 +.008 -.001
.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001
.750 THRU 1.000 +.010 -.001
1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02

MATERIAL:

DWN DATE
CHK
ENGR
QA
APVD
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas Texas

SIZE	CODE IDENT NO	DRAWING NO	REV
E	96214	999980	R

SCALE 1/1 SHEET 2

E 999980 2

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
0999980-0101	R	820 RO PRINTER-COMP PR-115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.........................	UM
0001	00001.000	0999690-0102	820 TERMINAL,BASIC-115V,10/16CPI 1221-2690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2206553-9701	OPERATORS MANUAL - 820 RO 1221-1553-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED AS AN 080126-0-7919-008-GY	
0026B			ALTERNATE FOR ITEM 25 080126-0-7919-008-GY	
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206563-0001	CARD CARRIER ASSY,820 RO 1221-1563-001	EA
0030	00001.000	2361102-0022	LABEL,ID,820 RO-COMP PR 1221-2322-000	EA
0031	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9599	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999980-0201     R        820 RO PRINTER-COMP PR-220V

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION...........................  UM

0001      00001.000   0999690-0202   820 TERMINAL,BASIC-220V,10/16 CPI          EA
                                     1221-4690-000
0004      00001.000   0999746-0001   PLENUM,PWB                                 EA
                                     1255-1020-035
0005      00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM                EA

0006      00001.000   0999748-0001   COVER,TEST                                 EA
                                     1255-1021-015
0007      00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR                EA
                                     1221-1351-000
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                EA
                                     000494-116-2801-163
0009      00001.000   2206553-9701   OPERATORS MANUAL - 820 RO                  EA
                                     1221-1553-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                   EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM            EA
                                     1225-9456-000
0016        REF       2362803-0001   PACKING ASSY 820 PRINTER                   EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS     EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                           EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER              EA
                                     1221-4472-000
0026      00001.000   0996290-0001   CORDSET,POWR-WEST EURO-RT ANGLE PLUG       EA

0027        REF       2207416-0001   INTERCONNECTION DIAGRAM,820/825            EA

0028      00001.000   2206563-0001   CARD CARRIER ASSY,820 RO                   EA
                                     1221-1563-001
0030      00001.000   2361102-0023   LABEL,ID,820 RO-COMP PR                    EA
                                     1221-2323-000
0031      00001.000   2361114-9701   INSTAL INSTR OMNI 800,820/825 RO           EA
                                     1221-1114-000
0032      00000.000   0996694-0001   CABLE ASSY,PWR,ELEC (INTERNATIONAL)        EA
                                     080126-64-1-075
0032A                                MAY BE USED IN PLACE OF
                                     080126-64-1-075
0032B                                ITEM 26
                                     080126-64-1-075
0041      00001.000   2360001-0001   TAG,BEARING                                EA
                                     7690-2000-000
9999      00000.000   0239999-9999   COST, SHRINKAGE                            EA
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999980-0401    R         820 RO PRINTER-COMP PR-BPO     220V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000  0999690-0402   820 TERMINAL,BASIC-220V,10/16 CPI (BPO)    EA
                                    1221-6690-000
0004      00001.000  0999746-0001   PLENUM,PWB                                 EA
                                    1255-1020-035
0005      00001.000  0999747-0001   INSULATOR, SOUND AIR PLENUM                EA

0006      00001.000  0999748-0001   COVER,TEST                                 EA
                                    1255-1021-015
0007      00001.000  0994351-0002   LABEL,CONFIGURATION,820 KSR                EA
                                    1221-1351-000
0008      00001.000  0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                EA
                                    000494-116-2801-163
0009      00001.000  2206553-9701   OPERATORS MANUAL - 820 RO                  EA
                                    1221-1553-000
0010      00000.020  0996472-0001   PAPER,CPO-1 PART PREMIUM                   EA
                                    093287-1412RH
0012      00001.000  0999456-9701   MANUAL,INFORMATION REQUEST FORM            EA
                                    1225-9456-000
0016       REF       2362803-0001   PACKING ASSY 820 PRINTER                   EA

0017      00001.000  0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS     EA
                                    1221-1860-000
0018      00001.000  0999713-0001   WINDOW, TERMINAL                           EA
                                    1255-1008-022
0023      00000.000  0994472-0001   SERVICE KIT,MODEL 810 PRINTER              EA
                                    1221-4472-000
0026      00001.000  0996695-0001   CABLE,POWER W/O PLUG (INTL.)               EA
                                    080126-107-2-093
0027       REF       2207416-0001   INTERCONNECTION DIAGRAM,820/825            EA

0028      00001.000  2206563-0001   CARD CARRIER ASSY,820 RO                   EA
                                    1221-1563-001
0030      00001.000  2361102-0024   LABEL,ID,820 RO-COMP PR BPO                EA
                                    1221-2324-000
0031      00001.000  2361114-9701   INSTAL INSTR OMNI 800,820/825 RO           EA
                                    1221-1114-000
0041      00001.000  2360001-0001   TAG,BEARING                                EA
                                    7690-2000-000
9999      00000.000  0239999-9999   COST, SHRINKAGE                            EA
```

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999980-0801    R         820 RO PRINTER-COMP PR-JPN     115V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000  0999690-0802   820 TERMINAL,BASIC-115V,10/16CPI,KATAKAN  EA
                                    1221-0000-000
0004      00001.000  0999746-0001   PLENUM,PWB                                EA
                                    1255-1020-035
0005      00001.000  0999747-0001   INSULATOR, SOUND AIR PLENUM               EA

0006      00001.000  0999748-0001   COVER,TEST                                EA
                                    1255-1021-015
0007      00001.000  0994351-0002   LABEL,CONFIGURATION,820 KSR               EA
                                    1221-1351-000
0008      00001.000  0996241-0001   RIBBON,BLACK,40 YARD-SINGLE               EA
                                    000494-116-2801-163
0009      00001.000  2206553-9701   OPERATORS MANUAL - 820 RO                 EA
                                    1221-1553-000
```

LIST OF MATERIALS

02/05/83

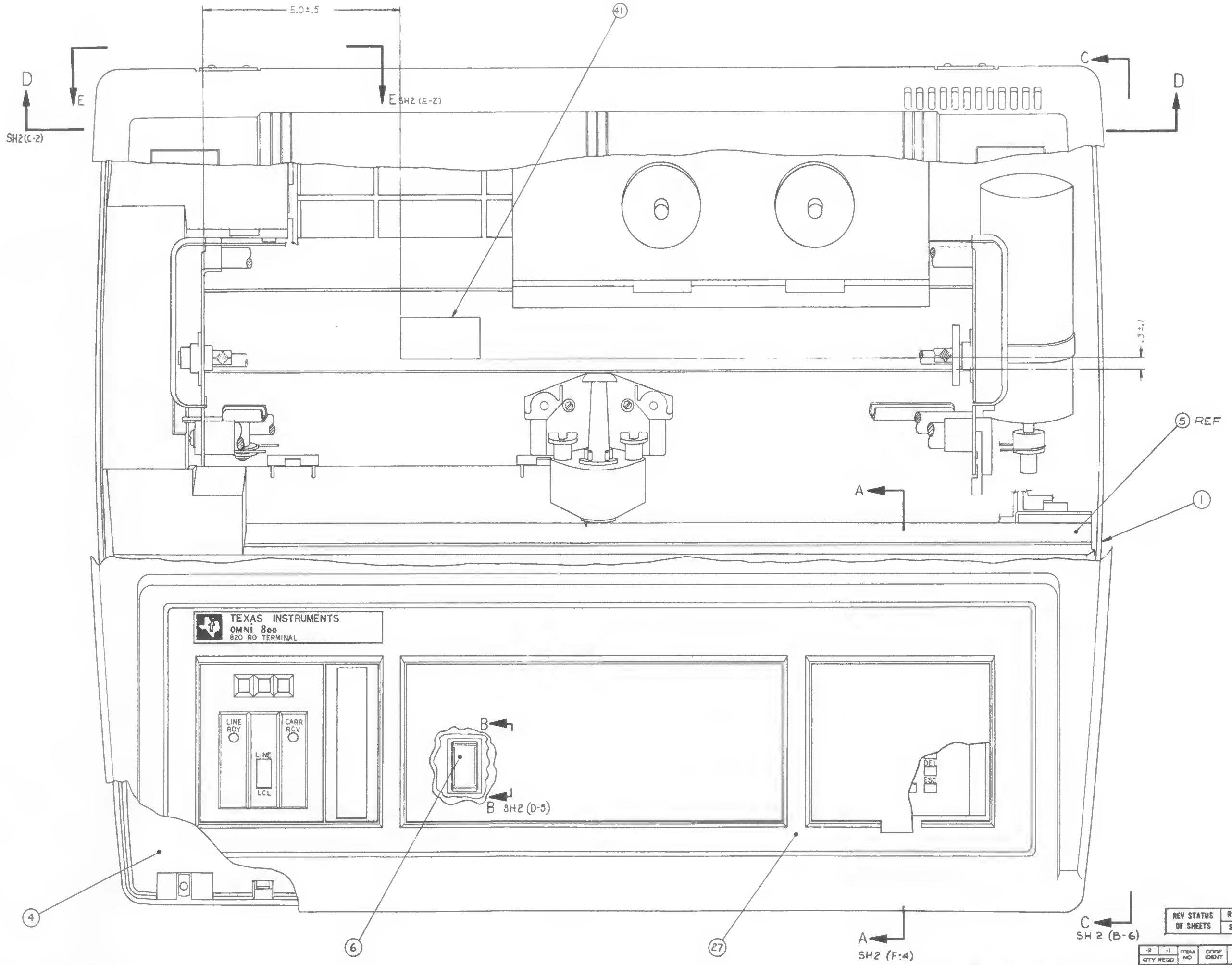
PART NUMBER	REV	DESCRIPTION............................
0999980-0801	R	820 RO PRINTER-COMP PR-JPN 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00001.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED AS AN 080126-0-7919-008-GY	
0026B			ALTERNATE FOR ITEM 25 080126-0-7919-008-GY	
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2206563-0001	CARD CARRIER ASSY,820 RO 1221-1563-001	EA
0030	00001.000	2361102-0026	LABEL,ID,820 RO-COMP PR JPN 1221-2326-000	EA
0031	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

NOTES:
1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRATCHES WHEN VIEWED FROM A DISTANCE OF 2 FEET AND HAVING A NORMAL VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.
2. INSTALL ITEM 28 IN SOCKET U12 ON THE PRINTED WIRING BOARD ASSEMBLY
3. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.
4. ~~INSTALL IDENTIFICATION LABEL, P/N , 5102, TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~
5. INSTALL THE ONE BIT ROM, P/N LU 2361105-0001, IN SOCKET XU12 IN MACHINES THAT DO NOT HAVE THE DFC (MFG) OPTION: THIS ROM WILL BE REQUIRED ON 820 RO BOARDS THAT CONTAIN.
   A.) ROM ADAPTOR BOARDS
   B.) ROM 2207625-0003 THRU -0008 IN SOCKETS XU9 AND XU10
   THE ONE BIT ROM WILL NO LONGER BE REQUIRED WHEN NEW ROMS 2207625-0009 & -0010 BECOME AVAILABLE
6. A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE T.I. IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN433824 C Dunn LM-0201 ITEM 25 WAS PN 996289-1	7-11-79	D. Stanus
	B	CN433836 REKHA SETH 1) LM-0101 AND -0201 ITEM 28 P/N WAS 999978-1	9-7-79	D. Stanus
	C	CN433883 Gerbet 1) ADD -0401 TO P/N BLOCK 2) DEL ITEM 26 ON LM.	10/17/79	D Stanus
	D	CN433682 (C) S Dodson (1) ON -101 & -201 LM'S: ITEM 9 WAS 999854-9701, ITEM 7 WAS 999934-0001, ITEM 28 WAS 999978-0001 AND DELETED ITEM 24 993205-0001 (2) REVISED ALL LM TITLES	11-14-79	S Dodson
	E	CN455665 (D) S Dodson (1) ITEM 8 OF -101 AND -201 WAS 996704-1	1-9-80	S Dodson
	F	CN445753 (C) S Dodson (1) -401 LM: ITEM 7 WAS 999934-1, ITEM 9 WAS 999854-9701, ITEM 28 WAS 999978-1; DELETED ITEM 24 993205-1	2-28-80	S Dodson
	G	CN 455626 (E) D Anderson (1) ADDED ITEMS 29 & 30 TO -101, -201 & -401 LM (2) -401 ITEM 25 P/N WAS 996348-0001	5/1/80	S Dodson
	H	CN460053 (D) M Kuhn (1) REVISED PER EXTENSIVE ENGR CHANGES (NO MICROFILM AVAILABLE)	7-17-80	S Dodson
	J	CN 452313 (E) M Kuhn (1) ADDED ITEM 33 TO ALL LM'S (NO MICROFILM AVAILABLE)	7-7-80	S Dodson
	K	CN452367 (D) M Kuhn (1) -401 LM: ITEM 7 WAS 999934-1	7-17-80	S Dodson
	L	CN452619 (D) S Dodson (1) ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80	S Dodson
	M	CN469186 (B) M Kuhn (1) ADDED VIEW E-E (2) ON -0101 LM, ADDED ITEM 40	2/10/81	D K Anderson
	N	CN465732 (D) S Dodson (1) ADDED NOTE 6	3-6-81	S Dodson
	P	CN477840 (D) D Howard (1) QNTY OF IT 23 WAS 1.0, IT 41 WAS ADDED.	10-14-81	M Kuhn
	R	CN486812 (C) P Run 1) ITEM 14 WAS DELETED FROM ALL LM'S	12-9-81	S Dodson
	T	CN503597 (C) M Kuhn (1) ON -0401 LM, ADDED ITEM 42	11/1/82	R Dalrymple
	U	CN507027 (D) P RUNYON (1) ON -0101 LM DEL ITEM 40, AND ALSO FROM PICTORIAL - SH 2, VIEW E-E	4-26-83	



999979-0801	820 RO PRINTER-PACKAGE-115V, JPN
999979-0401	820 RO PRINTER-PACKAGE-BPO 220V
999979-0201	820 RO PRINTER-PACKAGE-220V
999979-0101	820 RO PRINTER-PACKAGE-115V
PART NUMBER	DESCRIPTION

REV STATUS OF SHEETS	REV	U	U		
	SH	1	2		

-2 QTY REQD	-1 QTY REQD	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.006 −.001	.251 THRU .500 +.008 −.001
.501 THRU .750 +.008 −.001	.750 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

NEXT ASSY	USED ON
999683	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02

MATERIAL:

		DATE
DWN	M. Hagedorn	3-21-79
CHK	Dave Stanus	4-24-79
ENGR	J Davis	5/1/79
QA	Brooks	5/1/79
APVD	Jim Davis	5/1/79
CONTR NO	Jim Giss 5/1/79 Lyn P Baird	
DESIGN ACTIVITY RELEASE	Terry Villa	5/4/79

TEXAS INSTRUMENTS INCORPORATED
Equipment Group Dallas, Texas

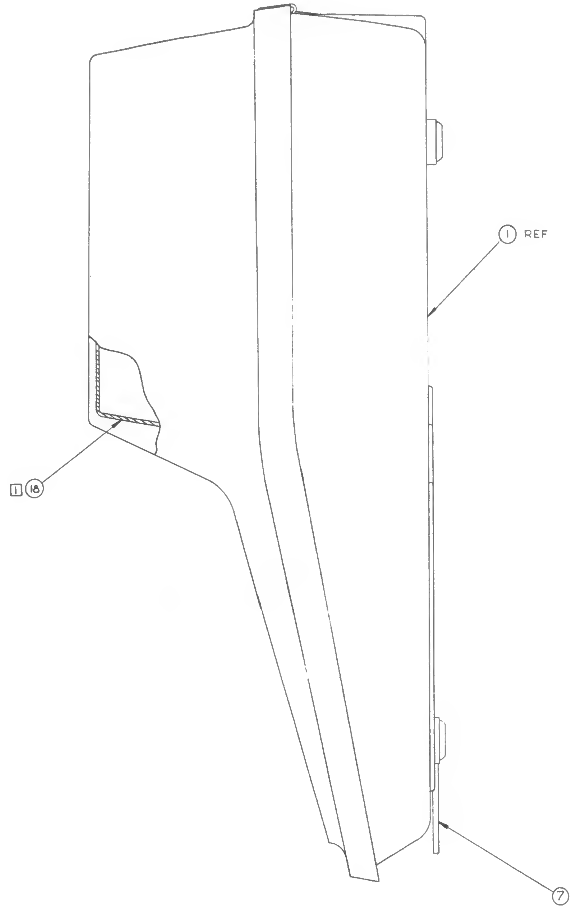
820 RO PACKAGE,
10/16 CPI

SIZE E CODE IDENT NO 9 DRAWING NO 999979
SCALE SHEET 1 OF 2

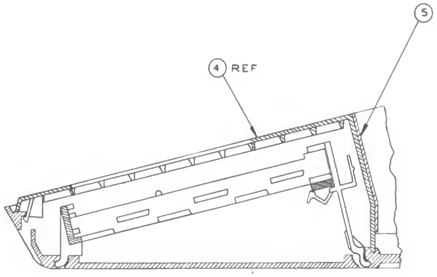
LM

30

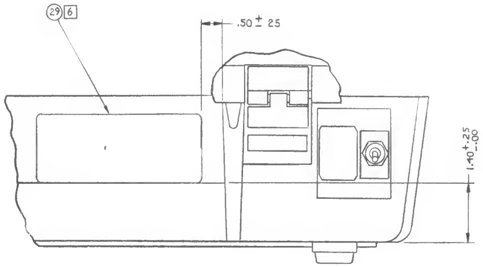
E 999979



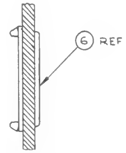
VIEW C-C
SH 1 (A-3)



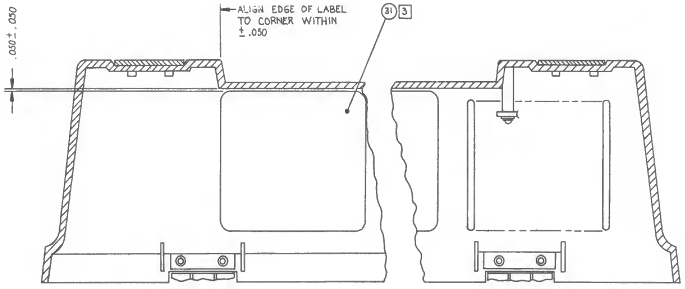
SECTION A-A
SH 1 (A-4)
ROTATED 90° CLOCKWISE



VIEW E-E
SH 1 (G-7)
ROTATED 180°



SECTION B-B
SH 1 (B-6)
SCALE 2/1



SECTION D-D
SH 1 (F-8)

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.750 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02

MATERIAL:

DWN
DATE
CHK
ENGR
QA
APVD
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS
INCORPORATED
Equipment Group Dallas, Texas

SIZE	CODE IDENT NO	DRAWING NO	REV
E	96214	999979	U

SCALE 1/1
SHEET 2

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999979-0101	U	820 RO PRINTER-PACKAGE-115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0999690-0102	820 TERMINAL,BASIC-115V,10/16CPI 1221-2690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2206563-0001	CARD CARRIER ASSY,820 RO 1221-1563-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2206553-9701	OPERATORS MANUAL - 820 RO 1221-1553-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED AS AN 080126-0-7919-008-GY	
0026B			ALTERNATE FOR ITEM 25 080126-0-7919-008-GY	
0027	00001.000	0999972-0001	CONTROL PANEL ASSY-FULL ASCII 820RO 1221-1972-001	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	00001.000	2361102-0027	LABEL,ID,820 RO PACKAGE 1221-2327-000	EA
0030	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0031	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0032	00001.000	2361102-0027	LABEL,ID,820 RO PACKAGE 1221-2327-000	EA
0033	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00001.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999979-0201    U         820 RO PRINTER-PACKAGE-220V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION........................... UM

0001      00001.000   0999690-0202   820 TERMINAL,BASIC-220V,10/16 CPI          EA
                                     1221-4690-000
0004      00001.000   0999746-0001   PLENUM,PWB                                 EA
                                     1255-1020-035
0005      00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM                EA

0006      00001.000   0999748-0001   COVER,TEST                                 EA
                                     1255-1021-015
0007      00001.000   2206563-0001   CARD CARRIER ASSY,820 RO                   EA
                                     1221-1563-001
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                EA
                                     000494-116-2801-163
0009      00001.000   2206553-9701   OPERATORS MANUAL - 820 RO                  EA
                                     1221-1553-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                   EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM            EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                   EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS     EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                           EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER              EA
                                     1221-4472-000
0025      00001.000   0996290-0001   CORDSET,POWR-WEST EURO-RT ANGLE PLUG       EA

0027      00001.000   0999972-0001   CONTROL PANEL ASSY-FULL ASCII 820RO        EA
                                     1221-1972-001
0028      00001.000   0999836-0001   DEVICE/FORMS CONTROL OPTION                EA
                                     1221-1836-001
0029      00001.000   2361102-0028   LABEL,ID,820 RO PACKAGE                    EA
                                     1221-2328-000
0030       REF        2207416-0001   INTERCONNECTION DIAGRAM,820/825            EA

0031      00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR                EA
                                     1221-1351-000
0032      00001.000   2361102-0028   LABEL,ID,820 RO PACKAGE                    EA
                                     1221-2328-000
0033      00001.000   2361114-9701   INSTAL INSTR OMNI 800,820/825 RO           EA
                                     1221-1114-000
0041      00001.000   2360001-0001   TAG,BEARING                                EA
                                     7690-2000-000
9999      00001.000   0239999-9999   COST, SHRINKAGE                            EA
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999979-0401	U	820 RO PRINTER-PACKAGE-BPO 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0999690-0402	820 TERMINAL,BASIC-220V,10/16 CPI (BPO) 1221-6690-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2206563-0001	CARD CARRIER ASSY,820 RO 1221-1563-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2206553-9701	OPERATORS MANUAL - 820 RO 1221-1553-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996695-0001	CABLE,POWER W/O PLUG (INTL.) 080126-107-2-093	EA
0027	00001.000	0999972-0001	CONTROL PANEL ASSY-FULL ASCII 820RO 1221-1972-001	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	00001.000	2361102-0029	LABEL,ID,820 RO PACKAGE BPO 1221-2329-000	EA
0030	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0031	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0032	00001.000	2361102-0029	LABEL,ID,820 RO PACKAGE BPO 1221-2329-000	EA
0033	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
0042	00001.000	2206525-0002	CHAR SET,ENGLISH ASCII,820 RO 1221-2525-000	EA
9999	00001.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999979-0801    U         820 RO PRINTER-PACKAGE-115V,JPN

ITEM.      QUANTITY.    COMPONENT..   DESCRIPTION........................... UM

0001       00001.000    0999690-0802    820 TERMINAL,BASIC-115V,10/16CPI,KATAKAN  EA
                                        1221-0000-000
0004       00001.000    0999746-0001    PLENUM,PWB                                 EA
                                        1255-1020-035
0005       00001.000    0999747-0001    INSULATOR, SOUND AIR PLENUM                EA

0006       00001.000    0999748-0001    COVER,TEST                                 EA
                                        1255-1021-015
0007       00001.000    2206563-0001    CARD CARRIER ASSY,820 RO                   EA
                                        1221-1563-001
0008       00001.000    0996241-0001    RIBBON,BLACK,40 YARD-SINGLE                EA
                                        000494-116-2801-163
0009       00001.000    2206553-9701    OPERATORS MANUAL - 820 RO                  EA
                                        1221-1553-000
0010       00000.020    0996472-0001    PAPER,CPO-1 PART PREMIUM                   EA
                                        093287-1412RH
0012       00001.000    0999456-9701    MANUAL,INFORMATION REQUEST FORM            EA
                                        1225-9456-000
0016        REF         2362803-0001    PACKING ASSY 820 PRINTER                   EA

0017       00001.000    0999860-9701    MANUAL, RIBBON & PAPER RECOMMENDATIONS     EA
                                        1221-1860-000
0018       00001.000    0999713-0001    WINDOW, TERMINAL                           EA
                                        1255-1008-022
0023       00000.000    0994472-0001    SERVICE KIT,MODEL 810 PRINTER              EA
                                        1221-4472-000
0025       00001.000    0996289-0001    CORD SET,3-PIN PWR-DOMESTIC BLACK          EA
                                        080126-0-7889-008-GY
0026       00000.000    0996289-0002    CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP    EA
                                        080126-0-7919-008-GY
0026A                                   *ITEM 26 MAY BE USED AS AN
                                        080126-0-7919-008-GY
0026B                                   *ALTERNATE FOR ITEM 25
                                        080126-0-7919-008-GY
0027       00001.000    0999972-0003    CONTROL PANEL ASSY,820 RO,KATAKANA         EA
                                        1221-0000-000
0028       00001.000    0999836-0001    DEVICE/FORMS CONTROL OPTION                EA
                                        1221-1336-001
0029        REF         2207416-0001    INTERCONNECTION DIAGRAM,820/825            EA

0031       00001.000    0994351-0002    LABEL,CONFIGURATION,820 KSR                EA
                                        1221-1351-000
0032       00001.000    2361102-0031    LABEL,ID,820 RO PACKAGE JPN                EA
                                        1221-2331-000
0033       00001.000    2361114-9701    INSTAL INSTR OMNI 800,820/825 RO           EA
                                        1221-1114-000
0041       00001.000    2360001-0001    TAG,BEARING                                EA
                                        7690-2000-000
9999       00001.000    0239999-9999    COST, SHRINKAGE                            EA
```

NOTES:

1. PIN NUMBERS ON CABLE CONNECTOR, P31, DO NOT AGREE WITH PIN NUMBERS ON EMULATOR BOARD & ITS CONNECTOR, J31, P31 PIN 39 CONNECTS TO J31 PIN 1.
2. ~~APPLY ADHESIVE (ITEM 80) BETWEEN EDGES OF (ITEM 79) CARD CARRIER SUPPORT AND RIBS ON (ITEM 1) TERMINAL BASE OVER LENGTH INDICATED, USE EPOXY PATCH~~
3. DISCARD ON/OFF PLATE SUPPLIED WITH ITEM 115 AND USE ITEM 85
4. [illegible] SOLDER GROUND WIRE OF ITEM 115 [illegible] AND REF DESIGNATOR INDICATED

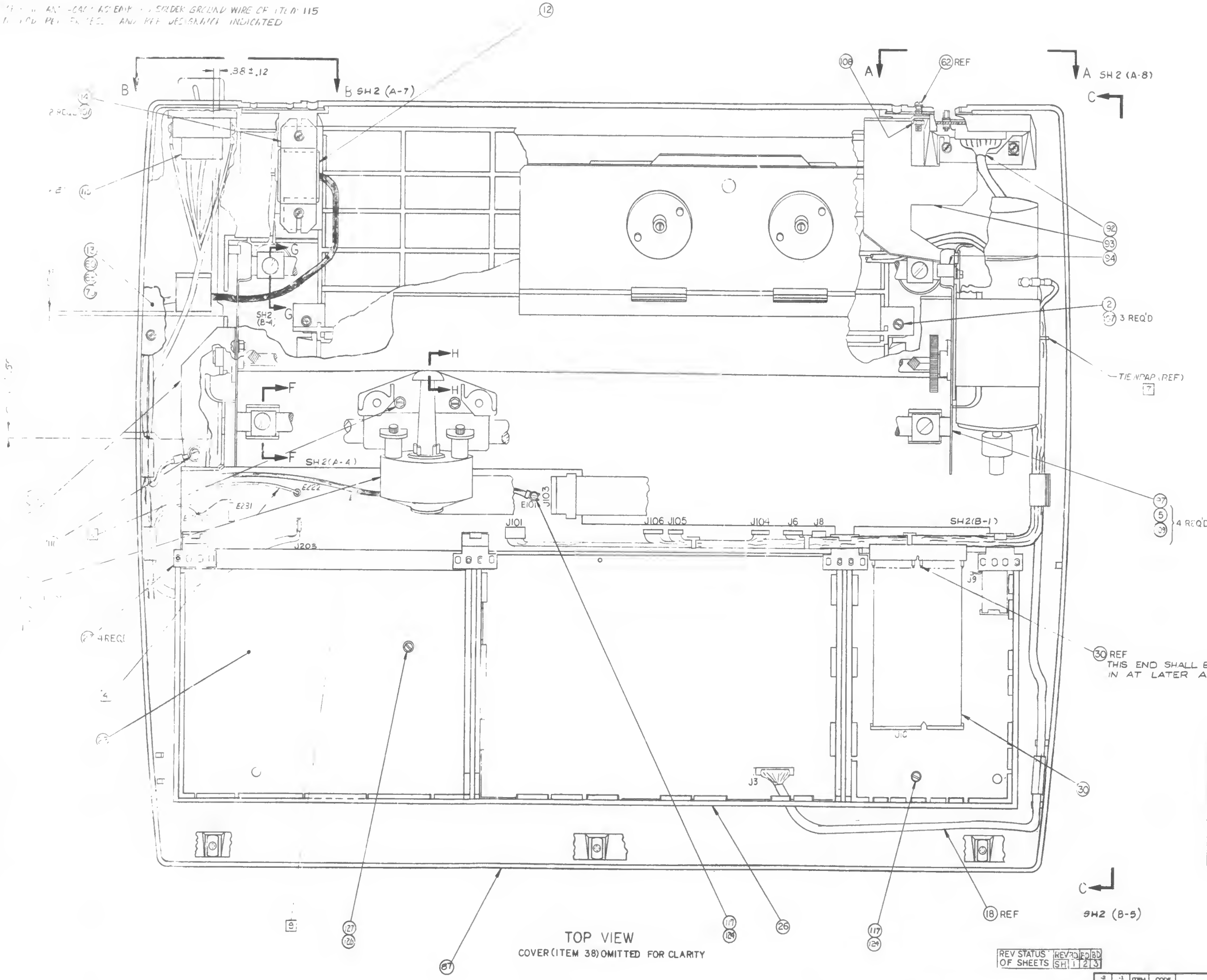
NOTES: CONTINUED

5. IT IS PERMISSIBLE FOR THE FOAM ON THE SIDE OF THE COVER NOT TO BE IN CONTACT WITH THE BASE OVER THE AREA SHOWN (ON BOTH SIDES) TO ALLOW ADJUSTMENT ON THE COVER (SEE VIEW M)
6. NOSEGUIDE SHALL BE ADJUSTED PER DIMENSION SHOWN IN SECTION H-H AND TIGHTEN SCREWS TO 10±1 IN PER LBS
7. IF THIS TIEWRAP HAS TO BE REMOVED AFTER THE MECHANISM HAS BEEN INSTALLED - IT IS NOT NECESSARY TO REPLACE IT

8. ITEM 23 MAY BE USED ONLY WITH ITEM 87
ITEM 121 MAY BE USED ONLY WITH ITEM 118

9. "ON ALL ASSEMBLIES EXCEPT -401 AND -402 FASTEN GROUND WIRE TO MOUNTING HOLE E101 ON PCB"

10. ITEM 105 SHOULD BE LOCATED WITHIN .50 INCHES OF THE IDENTIFICATION LABEL.



TOP VIEW

COVER (ITEM 38) OMITTED FOR CLARITY

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN425679 UPDATED LM 9-1-77	8/10/78	
	B	CN425860 UPDATED LM 11-3-77	8/10/78	
	C	CN428727 UPDATED LM 12-8-77 & GENERATED ASSY DWG	8/10/78	
	D	CN 440400 UPDATED LM 5-30-78	8/10/78	
	E	CN439580 UPDATED LM 7-31-78	8/10/78	
	F	CN439530 Landry 1) ITEM 47 QTY. WAS 3. ADDED ITEM 79, 80, 81, 82, 83 AND 84. DELETED ITEM 22, QTY 1 P/N 999823-1: 2) ADD NOTE 2 3) SH 2 Z (B-5) UPDATED VIEW C-C TO SHOW ITEM 1 AND ITEM 80. ADDED VIEW L-L CUTTING PLANE LINES 4) ADDED NEW SH 3, Z (B-7) ADDED VIEW L-L 5) SH 1 Z (D, E & F-7) REROUTED FAN CABLE. REPOSITION ITEM 24 AND ADDED DIM .12 ± .12	9/29/78	
	G	CN439542 JBLancaster 10-27-78 1) L/M ITEM 30 ON PART NO.S 999690-0101, 0102, 0201, & 0202 WAS 0919790-[illegible]	10/27/78	
	H	CN445351 C. Davis 1) ON LM 101; 102; 201 AND 202 DELETED ITEM 36 QTY 1 PN 999751-[illegible]; ITEM 41 QTY 1 PN999754-1; ITEM 45 QTY 3 PN 999757-[illegible]; ITEM 47 QTY AR PN972361-6; ITEM 55 PN996791-2 QTY 2 ITEM 64 QTY 2 PN 972938-[illegible]; ITEM 69 QTY 2 PN 416622-13; ITEM 77 QTY [illegible] PN 412991-[illegible] 2) ON LM 101-102-201 AND 202 ITEM [illegible] CHG FROM PN 999707-[illegible] 3) ADDED ITEM 85 TO LM 101-102-201 AND 202 QTY 1 PN 999924-1 4) ADDED NOTE 3 5) SH 1 Z 1-8 & F8 DIM WAS 0.00 ± .25, 6) SH2 Z F-3 [illegible] K-K DIM WAS 1.50 ± .25 7) SH2 Z B-3 VIEW [illegible] DIM WAS 1.00 ± .25, 8) ADD SECT L-L [illegible] (C-3)	11/15/78	
	J	CN439653 Sepeda 1) LM -201, -202 ITEM 16 P/N WAS 99[illegible]884-1		
	K	CN439658 L Sepeda 1) LM ITEM 80 P/N WAS 41763[illegible]-1 & [illegible] WAS ADHESIVE EPOXY 0151	12/20/78	
	L	CN 451016 W.L Paschke 1) LM ITEM 82 P/N WAS 972983-2[illegible]		
	M	CN445711 [illegible] 4/3/79 1) LM ADDED ITEM 86; (2) ADDED ITEM 86 ZONE C4 & [illegible]	5-3-79	D. Starnes
	N	CN450910 C. Davis 1) LM -0101, -0201, -0102 AND -0202 DELETED ITEM 15 PN 994435-1 QTY 4, (2) DELETED ITEM 24 PN 996086-1 QTY 5, (3) DELETED ITEM 25 PN 996729-1 QTY 1, (4) DELETED ITEM 44 PN 999756-1 QTY 3 (5) DELETED ITEM 79 PN 999848-1 QTY 1 (6) DELETED ITEM 80 PN 2210271-1 QTY AR (7) ADDED ITEM 87 TO LM -0101, -0102, -0201 AND -0202 (8) SH 1 (Z C3) DELETED SECT L-L (9) SH 3 (Z A7) DELETED IT 79 CALL OUT (10) SH 1 (Z B3) & SH 2 (Z F2) DELETED SECT K-K, (11) SH 1 (Z F7) & SH 2 (Z B3) DELETED SECT H-H (12) SH 1 (Z D3) & SH 2 (Z B1) DELETED SECT J-J & (13) DELETED NOTE 2		
	P	CN450913 (C) SDrinkard 1) ADDED -0401 AND -0402 (2) ADDED PROCESS 1 AND NOTE 4 (3) ZONE 3C 7: ADDED E222 AND GND WIRE [illegible] ITEM 16		
	R	CN433434 (D) SDrinkard (1) DELETED ITEM 28, 999907-1, ALL DASH NO.S		
	T	CN 445719 (D) [illegible] (1) ITEM [illegible] QUANTITY WAS 4 (2) ITEM 61 QTY WAS 12 (3) ITEM 63 P/N WAS 2210071-0024		
	U	CN435617 (D) SDrinkard (1) ALL DASH NO ITEM 37 WAS -3001		
	V	CN435623 (D) SDrinkard (1) ADDED NOTE 5 AND VIEW M	5-79	
	W	CN433424 (D) SDrinkard (1) REVISED VIEW A-A & VIEW B-B (SH 2)	5-2-79	
	Y	CN4340[illegible] (D) SDrinkard (1) ALL [illegible] 999682 [illegible] (2) DELETED ITEM [illegible] 3-1		K. Valgene
	AA	CN455024 (E) SDrinkard (1) ALL DASH NO DELETED ITEM 51 999833-1	11-14-79	
	AB	CN460[illegible] (D) [illegible] (1) ADDED [illegible]	1-7-8[illegible]	
	AC	CN45496[illegible] (D) [illegible] (1) REVISED VIEW A-A & B-B (SH 2)		
	AD	CN 460081 (B) [illegible] (1) ADDED ITEMS 88 & 89 (2) QTY ITEM 56 WAS 2 (3) REV PICTORIAL VIEW A-A		

REV. CONT. SH 2 Z H-1

PART NUMBER	DESCRIPTION
999690-0802	820 TERMINAL, BASIC-115V, 10/16 CPI, KATAKANA
999690-0801	820 TERMINAL, BASIC-115V, 10 CPI, KATAKANA
999690-0402	820 TERMINAL, BASIC-220V 10/16 CPI (RFO)
999690-0401	820 TERMINAL, BASIC-220V 10 CPI (RFO)
999690-0202	820 TERMINAL, BASIC-220V, 10/16 CPI
999690-0201	820 TERMINAL, BASIC-220V, 10 CPI
999690-0102	820 TERMINAL, BASIC-115V, 10/16 CPI
999690-0101	820 TERMINAL, BASIC-115V, 10 CPI

REV STATUS OF SHEETS	REV	BD	BD	BD
	SH	1	2	3

QTY REQD -2	QTY REQD -1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.006 -.001	.251 THRU .500 +.008 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
999685	8740
999975	8740
999979	8740
999980	8740
999695	8740
999686	8740

APPLICATION

300

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02

MATERIAL:

DWN R Nilles 7/21/78
CHK Louis Villa 8/10/78
ENGR Walt Russell 8/10/78
QA Ed Nix 8-10-78
APVD
CONTR NO [illegible] 8/10/78
DESIGN ACTIVITY RELEASE David Starnes 8/10/78

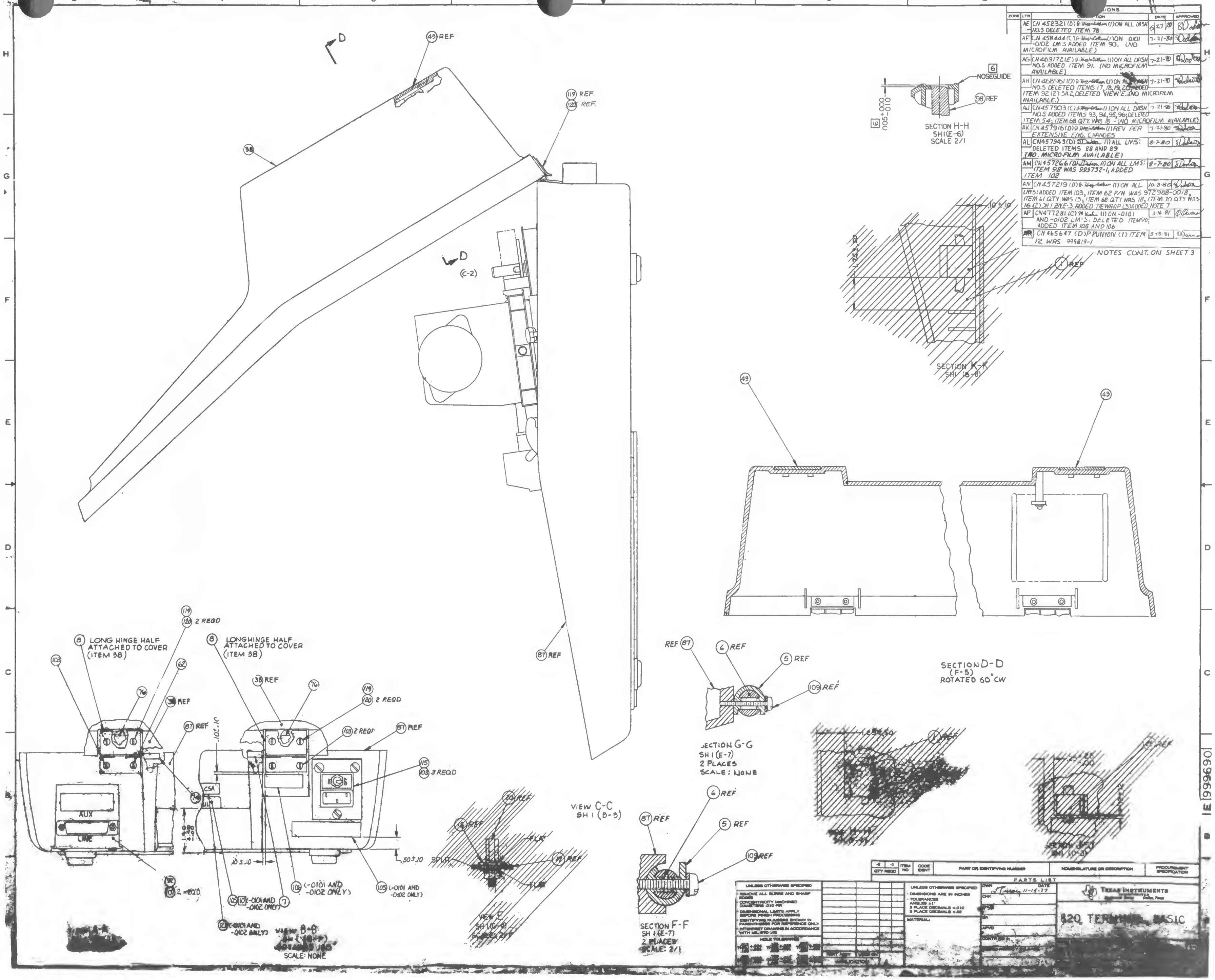
TEXAS INSTRUMENTS INCORPORATED
Equipment Group Dallas, Texas

820 TERMINAL, BASIC

SIZE E DRAWING NO 999690

SCALE SHEET 1 OF 3

F 999690



ZONE	LTR	DESCRIPTION	DATE	APPROVED
	AE	CN 452321 (D) (1) ON ALL DASH NO.S DELETED ITEM 78	5/27/80	
	AF	CN 458444 (C) (1) ON -0101 -0102 LM'S ADDED ITEM 90. (NO MICROFILM AVAILABLE)	7-21-80	
	AG	CN 469172 (E) (1) ON ALL DASH NO.S ADDED ITEM 91. (NO MICROFILM AVAILABLE)	7-21-80	
	AH	CN 468961 (D) (1) ON ALL DASH NO.S DELETED ITEMS 17, 18, 19, 20, ADDED ITEM 92 (2) SH.2, DELETED VIEW E. (NO MICROFILM AVAILABLE.)	7-21-80	
	AJ	CN 457903 (C) (1) ON ALL DASH NO.S ADDED ITEMS 93, 94, 95, 96; DELETED ITEM 54; ITEM 68 QTY. WAS 18 - (NO MICROFILM AVAILABLE)	7-21-80	
	AK	CN 457916 (D) (1) REV PER EXTENSIVE ENG. CHANGES	7-21-80	
	AL	CN 457943 (D) (1) ALL LMS: DELETED ITEMS 88 AND 89 (NO. MICRO-FILM AVAILABLE)	8-7-80	
	AM	CN 457266 (D) (1) ON ALL LMS: ITEM 98 WAS 999732-1, ADDED ITEM 102	8-7-80	
	AN	CN 457219 (D) (1) ON ALL LMS: ADDED ITEM 103, ITEM 62 P/N WAS 972988-0018, ITEM 61 QTY WAS 13, ITEM 68 QTY WAS 18, ITEM 70 QTY WAS 16 (2) SH 1 ZNE-3 ADDED TIEWRAP (3) ADDED NOTE 7	10-8-80	
	AP	CN 477281 (C) (1) ON -0101 AND -0102 LM'S, DELETED ITEM 90; ADDED ITEM 105 AND 106	3-16-81	
	AR	CN 465647 (D) P RUNYON (1) ITEM 12 WAS 999819-1	5-18-81	

NOTES CONT. ON SHEET 3

-2	-1					
QTY REQD		ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

NEXT ASSY | USED ON
APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES
ANGLES ±1°
3 PLACE DECIMALS ±.010
2 PLACE DECIMALS ±.02

MATERIAL

DWN 11-14-77
CHK
QA
APVD
CONTR

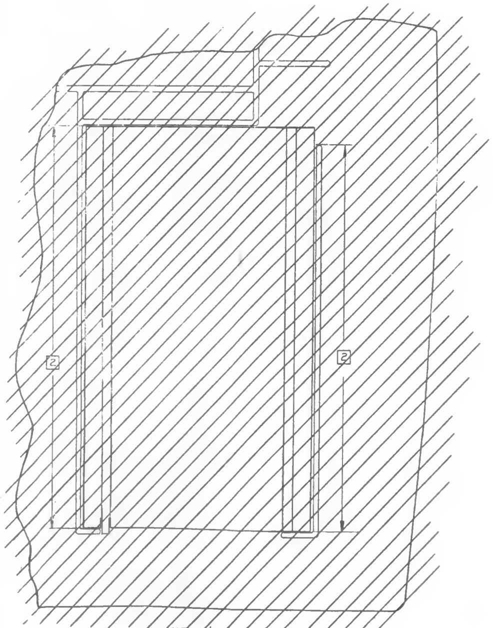
TEXAS INSTRUMENTS INCORPORATED
Dallas, Texas

820 TER[illegible] BASIC

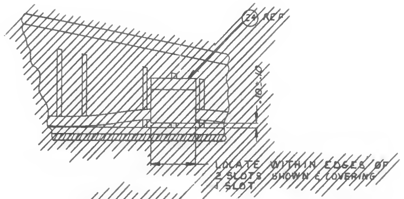
NOTES: UNLESS OTHERWISE SPECIFIED

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
AT	CN472362 (D) D. Howard (1) REV PER EXT ENG. CHANGES	10-14-81	
AU	CN477524 (D) D. Howard (1) ON DWG SH1, ADDED E271 E281 E222 (ZD-7)	12-4-81	
AV	CN477531 (D) Jo Ann Jaquess 1) REV PER EXT ENG CHNGS 2) UPDATED LM 3) UPDATED REV LVL BLK	1-29-82	
AW	CN477548 (D) Jo Ann Jaquess 1) REV PER EXT ENG CHNGS 2) UPDATED LM 3) UPDATED REV LVL BLK	1-29-82	
AY	CN477975 (D) D HOWARD (1) ON ALL LMS, REV IT 98 PN FROM 2213940-0001 (2) ON ALL LMS, ADDED IT 122	3-31-82	
BA	CN502079 (D) J. KLEPAC (1) ADDED NOTE 9 (2) ON ALL LM'S ITEM 117 P/N WAS 2210084-0002, ADDED ITEMS 123 AND 124 (3) ADDED GROUND WIRE TO E101	7-20-82	
BB	CN491994 (E) PRUNYON (1) ON ALL LMS ITEM 116 QTY WAS 2.00 P/N WAS 2210084-0022, ITEM 117 P/N WAS 2210084-0005, ALSO ADDED ITEMS 124, 126 & 127 (2) UPDATED PICTORIAL PER LM CHANGES (3) DELETED ITEMS 123, 123A, 123B, 124A & B FROM ALL LMS	4-25-83	B Hatcher
BC	CN507014 (D) PRUNYON (1) UPDATED APPLICATION BLOCK (2) ADDED NOTE 10 (3) REV VIEW B-B	4-25-83	B Hatcher
BD	CN507009 (C) PRUNYON (1) ON -0101 & -0102 LM ITEM 105 P/N WAS 0937286-0001, ALSO ADDED ITEM 128 (2) REV VIEW B-B PER LM CHANGES	4-25-83	B Hatcher

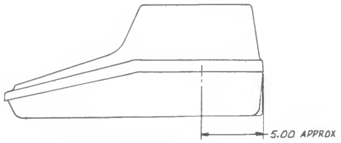


VIEW L-L
SH 2 (C-4)



LOCATE WITHIN EDGES OF 2 SLOTS SHOWN & COVERING 1 SLOT

SECTION L-L
SH 1 (C-3)
(ROTATE 90° CCW)



5 VIEW M
SCALE: NONE

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  - 3 PLACE DECIMALS ± .010
  - 2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.006 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY | USED ON
APPLICATION

DWN P. Lundry DATE 9-25-78
CHK
ENGR
APVD
QA
CONTR
RLSE

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

820 TERMINAL, BASIC

SIZE E | FSCM NO 9 | DRAWING NO 999690 | BD
SCALE | SHEET 3

DWG NO 999690 | 3

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729487

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION
0999690-0101	8D	820 TERMINAL,BASIC-115V,10CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2206573-00[illegible]	MECHANISM, 10 CPI 1221-1573-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-1573-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-1573-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0101	TERMINAL ELECTRONICS, 820 - 115 VAC, DOM 1221-0039-030	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0003	MECHANISM,10 CPI W/O P/H 1221-3573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0102	00000.000	0999732-0001	PRINTHEAD ASSEMBLY,30VOLT 1221-1732-904	EA
0102A			MAY BE USED AS AN ALTERNATE 1221-1732-904	

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..........................
0999690-0101	BD	820 TERMINAL,BASIC-115V,10CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0102B			FOR ITEM 98 1221-1732-904	
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0105	00001.000	0937286-0002	LABEL,UL 1225-2286-000	EA
0106	00001.000	2211617-0001	LABEL .437"H"X1.496"W",NOTE OF COMPLIANC 1224-1617-000	EA
0107	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0108	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0109	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0110	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0111	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0112	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0113	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0114	00000.000	2217354-0001	FILTER, AC LINE	EA
0114A			MAY BE USED AS AN ALTERNATE	
0114B			FOR ITEM 115	
0115	00001.000	2361131-0001	POWER CABLE ASSY - DOMESTIC 1221-1131-012	EA
0116	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0117	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0118	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0118A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0118B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0101	TERMINAL ELECTRONICS W/GND PLANE-115V 1221-1974-001	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-1974-001	
0121B			FOR ITEM 23 1221-1974-001	
0122	00000.000	2213940-0001	PRINTHEAD ASSY, 30 VOLT 1221-1940-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1940-000	
0122B			*FOR ITEM 98 1221-1940-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
0128	00001.000	0941401-0003	LABEL, LR NUMBER, CSA (46354)	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..........................
0999690-0102	BD	820 TERMINAL,BASIC-115V,10/16CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2206573-0002	MECHANISM, 10 & 16.5 CPI 1221-2573-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-2573-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-2573-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0101	TERMINAL ELECTRONICS, 820 - 115 VAC, DOM 1221-0039-030	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0004	MECHANISM,10 & 16.5 CPI W/O P/H 1221-4573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0102	00000.000	0999732-0001	PRINTHEAD ASSEMBLY,30VOLT 1221-1732-904	EA
0102A			MAY BE USED AS AN ALTERNATE 1221-1732-904	

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999690-0102	BD	820 TERMINAL,BASIC-115V,10/16CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0102B			FOR ITEM 98 1221-1732-904	
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0105	00001.000	0937286-0002	LABEL,UL 1225-2286-000	EA
0106	00001.000	2211617-0001	LABEL .437"H"X1.496"W",NOTE OF COMPLIANC 1224-1617-000	EA
0107	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0108	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0109	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0110	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0111	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0112	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0113	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0114	00000.000	2217354-0001	FILTER, AC LINE	EA
0114A			MAY BE USED AS AN ALTERNATE	
0114B			FOR ITEM 115	
0115	00001.000	2361131-0001	POWER CABLE ASSY - DOMESTIC 1221-1131-012	EA
0116	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0117	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0118	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0118A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0118B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0101	TERMINAL ELECTRONICS W/GND PLANE-115V 1221-1974-001	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-1974-001	
0121B			FOR ITEM 23 1221-1974-001	
0122	00000.000	2213940-0001	PRINTHEAD ASSY, 30 VOLT 1221-1940-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1940-000	
0122B			*FOR ITEM 98 1221-1940-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
0128	00001.000	0941401-0003	LABEL, LR NUMBER, CSA (46354)	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999690-0201    BD        820 TERMINAL,BASIC-220V,10 CPI

ITEM.      QUANTITY.    COMPONENT..  DESCRIPTION.........................   UM

0002       00001.000    0999739-0001   COVER, PAPER CHUTE                      EA
                                       1255-1017-027
0005       00004.000    0999885-0001   SHOCK MOUNT                             EA
                                       1255-1043-013
0006       00000.000    2206573-0001   MECHANISM, 10 CPI                       EA
                                       1221-1573-000
0006A                                  MAY BE USED AS AN ALTERNATE
                                       1221-1573-000
0006B                                  FOR ITEM 97,98,99,100 & 101
                                       1221-1573-000
0007       00001.000    0999740-0001   NUTPLATE,HINGE-LEFT TERMINAL BASE       EA
                                       1684-1740-015
0008       00002.000    0999741-0001   HINGE, TERMINAL COVER                   EA

0012       00001.000    0999819-0002   FAN ASSY -10,000 HR                     EA
                                       1221-0819-031
0013       00001.000    0999720-0001   PLENUM, FAN                             EA
                                       1255-1010-021
0014       00001.000    0983863-0001   BRACKET,FAN MOTOR,743/745/763/765/820   EA
                                       1683-3863-033
0023       00001.000    2208265-0201   TERMINAL ELECTRONICS, 820 - 220 VAC     EA
                                       1221-0038-001
0026       00001.000    0999744-0001   CARD FRAME, KEYBOARD/OPTION             EA
                                       1255-1018-031
0027       00004.000    0999745-0001   KEEPER, CARD FRAME                      EA
                                       1255-1019-017
0030       00001.000    0996774-0002   CABLE,ELEC,8.50LG FLAT,FLEXIBLE         EA
                                       000779-88769-1
0038       00001.000    0999918-0001   COVER ASSY                              EA
                                       1221-1918-001
0043       00002.000    0999762-0001   COVER, FALSE-ASR TERMINAL               EA
                                       1255-1027-016
0062       00001.000    2210084-0017   SEMS, PAN HEAD 6-32X5/8 EXT TOOTH       EA
                                       SEE TI- DRAWING
0074       00001.000    0999792-0001   NUTPLATE,HINGE-RH TERMINAL BASE         EA
                                       1684-1792-013
0076       00002.000    0999793-0001   NUTPLATE,HINGE- TERMINAL COVER          EA
                                       1684-1793-027
0081       00001.000    0999927-0001   GROUND STRAP MECHANISM                  EA
                                       1684-1927-019
0087       00001.000    0999737-0002   BASE ASSY,WITHOUT GROUND PLANE          EA
                                       1221-2737-001
0092       00001.000    2361118-0001   PANEL ASSEMBLY,EIA CABLE                EA
                                       1221-1118-038
0093       00001.000    2361115-0001   GROUND STRAP,PAPER BASKET & EIA PANEL   EA
                                       1684-0115-009
0094       00001.000    2211457-0001   CLIP,U-TYPE,SPRING STEEL                EA
                                       SEE TI- DRAWING
0097       00001.000    2206573-00[illegible]   MECHANISM,10 CPI W/O P/H       EA
                                       1221-3573-001
0098       00001.000    2217374-0001   PRINTHEAD ASSY, UNIVERSAL-82X           EA
                                       1221-1374-001
0099       00002.000    0994199-0001   NUT,PRINTHEAD                           EA

0100       00001.000    0983903-0002   CLIP,CABLE                              EA
                                       1680-1903-026
0101       00001.000    0999791-0001   CABLE ASSY,PRINTHEAD                    EA
                                       1221-1791-056
0102       00000.000    0999732-0001   PRINTHEAD ASSEMBLY,30VOLT               EA
                                       1221-1732-904
0102A                                  MAY BE USED AS AN ALTERNATE
                                       1221-1732-904
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999690-0201	ED	820 TERMINAL,BASIC-220V,10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0102B			FOR ITEM 98 1221-1732-904	
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0107	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0108	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0109	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0110	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0111	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0112	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0113	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0114	00000.000	2217354-0001	FILTER, AC LINE	EA
0114A			MAY BE USED AS AN ALTERANTE	
0114B			FOR ITEM 115	
0115	00001.000	2361131-0001	POWER CABLE ASSY - DOMESTIC 1221-1131-012	EA
0116	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0117	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0118	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0118A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0118B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0201	TERMINAL ELECTRONICS W/GND PLANE-230V 1221-2974-000	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-2974-000	
0121B			FOR ITEM 23 1221-2974-000	
0122	00000.000	2213940-0001	PRINTHEAD ASSY, 30 VOLT 1221-1940-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1940-000	
0122B			*FOR ITEM 98 1221-1940-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
9999	00003.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
0999690-0202	BD	820 TERMINAL,BASIC-220V,10/16 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2206573-0002	MECHANISM, 10 & 16.5 CPI 1221-2573-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-2573-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-2573-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0201	TERMINAL ELECTRONICS, 820 - 220 VAC 1221-0038-001	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0004	MECHANISM,10 & 16.5 CPI W/O P/H 1221-4573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0102	00000.000	0999732-0001	PRINTHEAD ASSEMBLY,30VOLT 1221-1732-904	EA
0102A			MAY BE USED AS AN ALTERNATE 1221-1732-904	

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..........................
0999690-0202	BD	820 TERMINAL,BASIC-220V,10/16 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..........................	UM
0102B			FOR ITEM 98 1221-1732-904	
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0107	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0108	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0109	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0110	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0111	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0112	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0113	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0114	00000.000	2217354-0001	FILTER, AC LINE	EA
0114A			MAY BE USED AS AN ALTERNATE	
0114B			FOR ITEM 115	
0115	00001.000	2361131-0001	POWER CABLE ASSY - DOMESTIC 1221-1131-012	EA
0116	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0117	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0118	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0118A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0118B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0201	TERMINAL ELECTRONICS W/GND PLANE-230V 1221-2974-000	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-2974-000	
0121B			FOR ITEM 23 1221-2974-000	
0122	00000.000	2213940-0001	PRINTHEAD ASSY, 30 VOLT 1221-1940-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1940-000	
0122B			*FOR ITEM 98 1221-1940-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
9999	00003.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999690-0401    BD        820 TERMINAL,BASIC-220V,10 CPI (BPO)

ITEM.      QUANTITY.    COMPONENT..  DESCRIPTION........................... UM

0002       00001.000   0999739-0001   COVER, PAPER CHUTE                          EA
                                      1255-1017-027
0005       00004.000   0999885-0001   SHOCK MOUNT                                 EA
                                      1255-1043-013
0006       00000.000   2206573-0001   MECHANISM, 10 CPI                           EA
                                      1221-1573-000
0006A                                 MAY BE USED AS AN ALTERNATE
                                      1221-1573-000
0006B                                 FOR ITEM 97,98,99,100 & 101
                                      1221-1573-000
0007       00001.000   0999740-0001   NUTPLATE,HINGE-LEFT TERMINAL BASE           EA
                                      1684-1740-015
0008       00002.000   0999741-0001   HINGE, TERMINAL COVER                       EA

0012       00001.000   0999819-0002   FAN ASSY -10,000 HR                         EA
                                      1221-0819-031
0013       00001.000   0999720-0001   PLENUM, FAN                                 EA
                                      1255-1010-021
0014       00001.000   0983863-0001   BRACKET,FAN MOTOR,743/745/763/765/820       EA
                                      1683-3863-033
0023       00001.000   2208265-0401   TERMINAL ELECTRONICS, 820 - 220 VAC, BPO    EA
                                      1221-0037-000
0026       00001.000   0999744-0001   CARD FRAME, KEYBOARD/OPTION                 EA
                                      1255-1018-031
0027       00004.000   0999745-0001   KEEPER, CARD FRAME                          EA
                                      1255-1019-017
0030       00001.000   0996774-0002   CABLE,ELEC,8.50LG FLAT,FLEXIBLE             EA
                                      000779-88769-1
0038       00001.000   0999918-0001   COVER ASSY                                  EA
                                      1221-1918-001
0043       00002.000   0999762-0001   COVER, FALSE-ASR TERMINAL                   EA
                                      1255-1027-016
0062       00001.000   2210084-0017   SEMS, PAN HEAD 6-32X5/8 EXT TOOTH           EA
                                      SEE TI- DRAWING
0074       00001.000   0999792-0001   NUTPLATE,HINGE-RH TERMINAL BASE             EA
                                      1684-1792-013
0076       00002.000   0999793-0001   NUTPLATE,HINGE- TERMINAL COVER              EA
                                      1684-1793-027
0081       00001.000   0999927-0001   GROUND STRAP MECHANISM                      EA
                                      1684-1927-019
0087       00001.000   0999737-0002   BASE ASSY,WITHOUT GROUND PLANE              EA
                                      1221-2737-001
0092       00001.000   2361118-0001   PANEL ASSEMBLY,EIA CABLE                    EA
                                      1221-1118-038
0093       00001.000   2361115-0001   GROUND STRAP,PAPER BASKET & EIA PANEL       EA
                                      1684-0115-009
0094       00001.000   2211457-0001   CLIP,U-TYPE,SPRING STEEL                    EA
                                      SEE TI- DRAWING
0097       00001.000   2206573-0003   MECHANISM,10 CPI W/O P/H                    EA
                                      1221-3573-001
0098       00001.000   2217374-0001   PRINTHEAD ASSY, UNIVERSAL-82X               EA
                                      1221-1374-001
0099       00002.000   0994199-0001   NUT,PRINTHEAD                               EA

0100       00001.000   0983903-0002   CLIP,CABLE                                  EA
                                      1680-1903-026
0101       00001.000   0999791-0001   CABLE ASSY,PRINTHEAD                        EA
                                      1221-1791-056
0102       00000.000   0999732-0001   PRINTHEAD ASSEMBLY,30VOLT                   EA
                                      1221-1732-904
0102A                                 MAY BE USED AS AN ALTERNATE
                                      1221-1732-904
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999690-0401    BD        820 TERMINAL,BASIC-220V,10 CPI (BPO)

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION.............................. UM

0102B                               FOR ITEM 98
                                    1221-1732-904
0103      00006.000   2210084-0015  SEMS,PAN HEAD 6-32X7/16 EXT TOOTH          EA
                                    SEE TI- DRAWING
0107      00007.000   2211692-0005  SEMS,4-40X.437,PAN HEAD,CONE WASHER        EA
                                    SEE TI- DRAWING
0108      00001.000   2210006-0002  ASSY, HEX NUT, LOCKWASHERS                 EA
                                    092550-SEE DRAWING
0109      00004.000   2211690-0026  SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER       EA
                                    SEE TI- DRAWING
0110      00001.000   2210006-0003  ASSY,HEX NUT,LOCKWASHERS, 8-32             EA
                                    092550-SEE DRAWING
0111      00001.000   0972684-0018  SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD    EA

0112      00002.000   2211690-0005  SEMS,4-40 X.437,PAN HEAD,FLAT WASHER       EA
                                    SEE TI- DRAWING
0113      00002.000   2210006-0001  ASSY,HEX NUT,LOCKWASHERS, 4-40             EA
                                    092550-SEE DRAWING
0114      00000.000   2217354-0001  FILTER, AC LINE                            EA

0114A                               MAY BE USED AS AN ALTERNATE

0114B                               FOR ITEM 115

0115      00001.000   2361131-0002  POWER CABLE ASSY - BPO                     EA
                                    1221-2131-002
0116      00001.000   2210084-0024  SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC       EA
                                    SEE TI- DRAWING
0117      00002.000   0972988-0015  SCREW 4-40 X .375 PAN HEAD CRES            EA

0118      00000.000   0999737-0001  BASE ASSEMBLY, 820                         EA
                                    1221-9737-000
0118A                               MAY BE USED AS AN ALTERNATE
                                    1221-9737-000
0118B                               FOR ITEM 87
                                    1221-9737-000
0119      00002.000   2361126-0001  HINGE, STOP - 820 COVER                    EA
                                    1684-0126-009
0120      00004.000   2210084-0016  SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W.   EA
                                    SEE TI- DRAWING
0121      00000.000   0999974-0401  TERM ELECTRONICS W/GND PLANE-230V BPO      EA
                                    1221-4974-000
0121A                               MAY BE USED AS AN ALTERNATE
                                    1221-4974-000
0121B                               FOR ITEM 23
                                    1221-4974-000
0122      00000.000   2213940-0001  PRINTHEAD ASSY, 30 VOLT                    EA
                                    1221-1940-000
0122A                               *MAY BE USED AS AN ALTERNAT
                                    1221-1940-000
0122B                               *FOR ITEM 98
                                    1221-1940-000
0124      00002.000   0411101-0057  LOCKWASHER # 4  EXTERNAL TOOTH CRES        EA
                                    QPL    - MS35335-57
0126      00001.000   0411101-0059  LOCKWASHER # 8  EXTERNAL TOOTH CRES        EA
                                    QPL    - MS35335-59
0127      00001.000   0972988-0043  SCREW 8-32 X .375 PAN HEAD CRES            EA

9999      00003.000   0239999-9999  COST, SHRINKAGE                            EA
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LIST OF MATERIALS

02/09/83

PART NUMBER	REV	DESCRIPTION..........................
0999690-0402	BD	820 TERMINAL,BASIC-220V,10/16 CPI (BPO)

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2206573-0002	MECHANISM, 10 & 16.5 CPI 1221-2573-000	EA
0006A			*MAY BE USED AS AN ALTERNAT 1221-2573-000	
0006B			*FOR ITEM 97,98,99,100,101 1221-2573-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0401	TERMINAL ELECTRONICS, 820 - 220 VAC, BPO 1221-0037-000	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0004	MECHANISM,10 & 16.5 CPI W/O P/H 1221-4573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0102	00000.000	0999732-0001	PRINTHEAD ASSEMBLY,30VOLT 1221-1732-904	EA
0102A			*MAY BE USED AS AN ALTERNAT 1221-1732-904	

LIST OF MATERIALS

02/09/83

PART NUMBER	REV	DESCRIPTION............................
0999690-0402	BD	820 TERMINAL,BASIC-220V,10/16 CPI (BPO)

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..........................	UM
0102B			*FOR ITEM 98 1221-1732-904	
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0107	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0108	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0109	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0110	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0111	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0112	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0113	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0114	00000.000	2217354-0001	FILTER, AC LINE	EA
0114A			*MAY BE USED AS AN ALTERNAT	
0114B			*FOR ITEM 115	
0115	00001.000	2361131-0002	POWER CABLE ASSY - BPO 1221-2131-002	EA
0116	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0117	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0118	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0118A			*MAY BE USED AS AN ALTERNAT 1221-9737-000	
0118B			*FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0401	TERM ELECTRONICS W/GND PLANE-230V BPO 1221-4974-000	EA
0121A			*MAY BE USED AS AN ALTERNAT 1221-4974-000	
0121B			*FOR ITEM 23 1221-4974-000	
0122	00000.000	2213940-0001	PRINTHEAD ASSY, 30 VOLT 1221-1940-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1940-000	
0122B			*FOR ITEM 98 1221-1940-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
9999	00003.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
0999690-0801	ED	820 TERMINAL,BASIC-115V,10CPI,KATAKANA

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..........................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2206573-0001	MECHANISM, 10 CPI 1221-1573-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-1573-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-1573-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0111	TERMINAL ELECT, 820 - 115 VAC, KATA KANA 1221-0035-000	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0003	MECHANISM,10 CPI W/O P/H 1221-3573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0102	00000.000	0999732-0001	PRINTHEAD ASSEMBLY,30VOLT 1221-1732-904	EA
0102A			MAY BE USED AS AN ALTERNATE 1221-1732-904	

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999690-0801    ED        820 TERMINAL,BASIC-115V,10CPI,KATAKANA

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0102B                                FOR ITEM 98
                                     1221-1732-904
0103      00006.000   2210084-0015   SEMS,PAN HEAD 6-32X7/16 EXT TOOTH          EA
                                     SEE TI- DRAWING
0107      00007.000   2211692-0005   SEMS,4-40X.437,PAN HEAD,CONE WASHER        EA
                                     SEE TI- DRAWING
0108      00001.000   2210006-0002   ASSY, HEX NUT, LOCKWASHERS                 EA
                                     092550-SEE DRAWING
0109      00004.000   2211690-0026   SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER       EA
                                     SEE TI- DRAWING
0110      00001.000   2210006-0003   ASSY,HEX NUT,LOCKWASHERS, 8-32             EA
                                     092550-SEE DRAWING
0111      00001.000   0972684-0018   SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD    EA

0112      00002.000   2211690-0005   SEMS,4-40 X.437,PAN HEAD,FLAT WASHER       EA
                                     SEE TI- DRAWING
0113      00002.000   2210006-0001   ASSY,HEX NUT,LOCKWASHERS, 4-40             EA
                                     092550-SEE DRAWING
0114      00000.000   2217354-0001   FILTER, AC LINE                            EA

0114A                                MAY BE USED AS AN ALTERNATE

0114B                                FOR ITEM 115

0115      00001.000   2361131-0001   POWER CABLE ASSY - DOMESTIC                EA
                                     1221-1131-012
0116      00001.000   2210084-0024   SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC       EA
                                     SEE TI- DRAWING
0117      00002.000   0972988-0015   SCREW 4-40 X .375 PAN HEAD CRES            EA

0118      00000.000   0999737-0001   BASE ASSEMBLY, 820                         EA
                                     1221-9737-000
0118A                                MAY BE USED AS AN ALTERNATE
                                     1221-9737-000
0118B                                FOR ITEM 87
                                     1221-9737-000
0119      00002.000   2361126-0001   HINGE, STOP - 820 COVER                    EA
                                     1684-0126-009
0120      00004.000   2210084-0016   SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W.   EA
                                     SEE TI- DRAWING
0121      00000.000   0999974-0801   TERM ELEC W/GND PLANE-115V,KATAKANA        EA
                                     1221-0000-000
0121A                                MAY BE USED AS AN ALTERNATE
                                     1221-0000-000
0121B                                FOR ITEM 23
                                     1221-0000-000
0122      00000.000   2213940-0001   PRINTHEAD ASSY, 30 VOLT                    EA
                                     1221-1940-000
0122A                                *MAY BE USED AS AN ALTERNAT
                                     1221-1940-000
0122B                                *FOR ITEM 98
                                     1221-1940-000
0124      00002.000   0411101-0057   LOCKWASHER # 4  EXTERNAL TOOTH CRES        EA
                                     QPL    - MS35335-57
0126      00001.000   0411101-0059   LOCKWASHER # 8  EXTERNAL TOOTH CRES        EA
                                     QPL    - MS35335-59
0127      00001.000   0972988-0043   SCREW 8-32 X .375 PAN HEAD CRES            EA

9999      00003.000   0239999-9999   COST, SHRINKAGE                            EA
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999690-0802	BD	820 TERMINAL,BASIC-115V,10/16CPI,KATAKAN

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2206573-0002	MECHANISM, 10 & 16.5 CPI 1221-2573-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-2573-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-2573-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0111	TERMINAL ELECT, 820 - 115 VAC, KATA KANA 1221-0035-000	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0004	MECHANISM,10 & 16.5 CPI W/O P/H 1221-4573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0102	00000.000	0999732-0001	PRINTHEAD ASSEMBLY,30VOLT 1221-1732-904	EA
0102A			MAY BE USED AS AN ALTERNATE 1221-1732-904	

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.........................
0999690-0802    BD        820 TERMINAL,BASIC-115V,10/16CPI,KATAKAN

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.......................... UM

0102B                                  FOR ITEM 98
                                       1221-1732-904
0103      00006.000   2210084-0015     SEMS,PAN HEAD 6-32X7/16 EXT TOOTH       EA
                                       SEE TI- DRAWING
0107      00007.000   2211692-0005     SEMS,4-40X.437,PAN HEAD,CONE WASHER     EA
                                       SEE TI- DRAWING
0108      00001.000   2210006-0002     ASSY, HEX NUT, LOCKWASHERS              EA
                                       092550-SEE DRAWING
0109      00004.000   2211690-0026     SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER    EA
                                       SEE TI- DRAWING
0110      00001.000   2210006-0003     ASSY,HEX NUT,LOCKWASHERS, 8-32          EA
                                       092550-SEE DRAWING
0111      00001.000   0972684-0018     SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD EA

0112      00002.000   2211690-0005     SEMS,4-40 X.437,PAN HEAD,FLAT WASHER    EA
                                       SEE TI- DRAWING
0113      00002.000   2210006-0001     ASSY,HEX NUT,LOCKWASHERS, 4-40          EA
                                       092550-SEE DRAWING
0114      00000.000   2217354-0001     FILTER, AC LINE                         EA

0114A                                  MAY BE USED AS AN ALTERNATE

0114B                                  FOR ITEM 115

0115      00001.000   2361131-0001     POWER CABLE ASSY - DOMESTIC             EA
                                       1221-1131-012
0116      00001.000   2210084-0024     SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC    EA
                                       SEE TI- DRAWING
0117      00002.000   0972988-0015     SCREW 4-40 X .375 PAN HEAD CRES         EA

0118      00000.000   0999737-0001     BASE ASSEMBLY, 820                      EA
                                       1221-9737-000
0118A                                  MAY BE USED AS AN ALTERNATE
                                       1221-9737-000
0118B                                  FOR ITEM 87
                                       1221-9737-000
0119      00002.000   2361126-0001     HINGE, STOP - 820 COVER                 EA
                                       1684-0126-009
0120      00004.000   2210084-0016     SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. EA
                                       SEE TI- DRAWING
0121      00000.000   0999974-0801     TERM ELEC W/GND PLANE-115V,KATAKANA     EA
                                       1221-0000-000
0121A                                  MAY BE USED AS AN ALTERNATE
                                       1221-0000-000
0121B                                  FOR ITEM 23
                                       1221-0000-000
0122      00000.000   2213940-0001     PRINTHEAD ASSY, 30 VOLT                 EA
                                       1221-1940-000
0122A                                  *MAY BE USED AS AN ALTERNAT
                                       1221-1940-000
0122B                                  *FOR ITEM 98
                                       1221-1940-000
0124      00002.000   0411101-0057     LOCKWASHER # 4  EXTERNAL TOOTH CRES     EA
                                       QPL    - MS35335-57
0126      00001.000   0411101-0059     LOCKWASHER # 8  EXTERNAL TOOTH CRES     EA
                                       QPL    - MS35335-59
0127      00001.000   0972988-0043     SCREW 8-32 X .375 PAN HEAD CRES         EA

9999      00003.000   0239999-9999     COST, SHRINKAGE                         EA
```

NO

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRACHES WHEN VIEWED FROM VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.

2. ~~INSTALL ITEM 28 IN SOCKET U12 ON THE PWR ASSEMBLY.~~

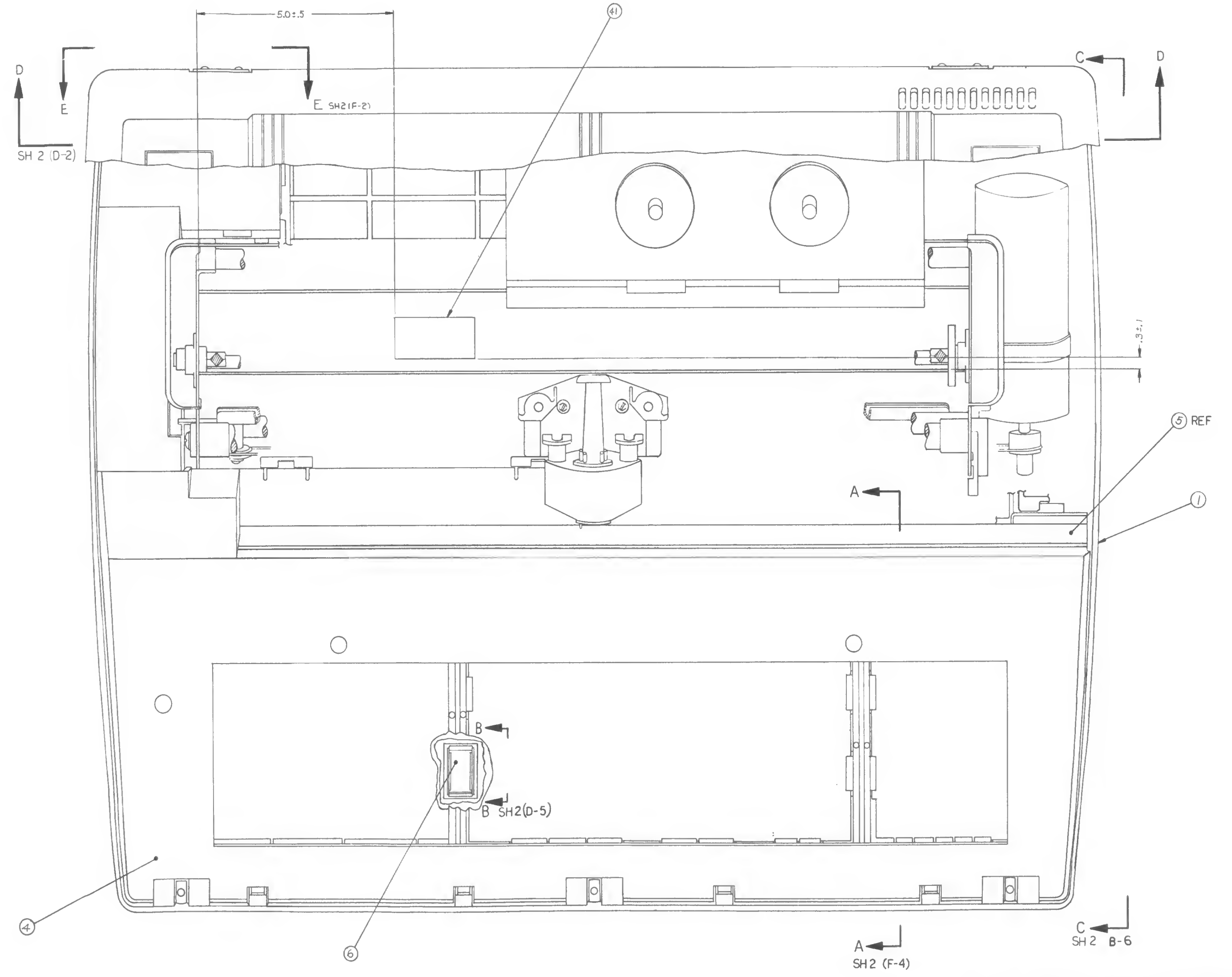
3. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.

4. ~~INSTALL IDENTIFICATION LABEL, PN2361102, TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~

5. A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE TI IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER.

NS

ZONE	LTR		DATE	APPROVED
	A	CN455631 RE LM2207400-0401 ITEM 25 P/N WAS 996290-N	10-4-79	D. Stevens
	B	CN444016 (E) S.Dodson (1) ALL LM's ITEM 8 WAS 996704-1	12/19/79	S.Dodson
	C	CN455627(E) S.Dodson (1)-101, -201 + -401 ADDED ITEM 29 + 30 (2) ON -401 ITEM 25 WAS 996348-1	2-12-80	S.Dodson
	D	CN460054(C) J.E. Murray (1) REVISED PER EXTENSIVE ENG CHANGES	3/25/80	S.Dodson
	E	CN 452373(E) R HIGGINBOTHAM (1) ON ALL DASH NO.S ADDED ITEM 31	5/29/80	S.Dodson
	F	CN472347(D) S.Dodson (1)-201 ADDED ITEM 32	10-10-80	S.Dodson
	G	CN452619 (D) S.Dodson (1) ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80	S.Dodson
	H	CN469186 (B) M.Kuehn (1) ADDED VIEW E-E (2) ON -0101 LM - ADDED ITEM 40	2/10/81	D.Anderson
	J	CN465732 (D)	3/6/81	
	K	CN477840 (D) D Howard (1) QNTY OF IT 23 WAS 1.0, ADDED IT. 41.	10-16-81	
	L	CN486812 (C) D. Howard (1) DEL IT 14 FROM ALL LM'S.	11-4-81	S.Dodson
	M	CN 507032 (D) RUNYON (1) DEL ITEM 40 ON -0101 LM (2) SH2 VIEW E-E DEL DIM'S 1.25±.25 AND .40±.10 (3) TITLE WAS 825 KSR TERMINAL ASSY	2-3-83	
	N	CN497288 (C) RUNYON (1) ON -0201 LM ITEM 25 P/N WAS 0996290-0001 (2) ON -0401 LM ITEM 25 P/N WAS 0996095-0001	4-26-83	



PART NUMBER	DESCRIPTION
2207400 0801	825 KSR TERMINAL-STD PRNT 115V, JPN
2207400-0401	825 KSR TERMINAL ASSY, 220V, (BPO) 10 CPI
2207400-0201	825 KSR TERMINAL ASSY, 220V 10 CPI
2207400-0101	825 KSR TERMINAL ASSY, 115V 10 CPI

REV STATUS OF SHEETS	REV	M	M
	SH	1	2

-2	1	ITEM NO	TEXAS INSTRUMENTS PART OR IDENTIFYING NO	GOVT OR INDUSTRY PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
QTY REQD					

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES			
.013 THRU .125	+.004 -.001	.251 THRU .500	+.006 -.001
.126 THRU .250	+.005 -.001	.501 THRU .750	+.008 -.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100

NEXT ASSY	USED ON
2207449	8740

APPLICATION

30

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02

MATERIAL

		DATE
DR	S. Stevens	7-2-79
CHK	Dave Stevens	7/29/79
ENGR	Charlie Haynes	7-30-79
APPD	Dennis R. Fritsche	7/24/79
CONTR NO		7/30
DESIGN ACTIVITY RELEASE		7/30/79
		7/30/79

TEXAS INSTRUMENTS INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

TITLE
825 KSR TERMINAL ASSY, 10 CPI

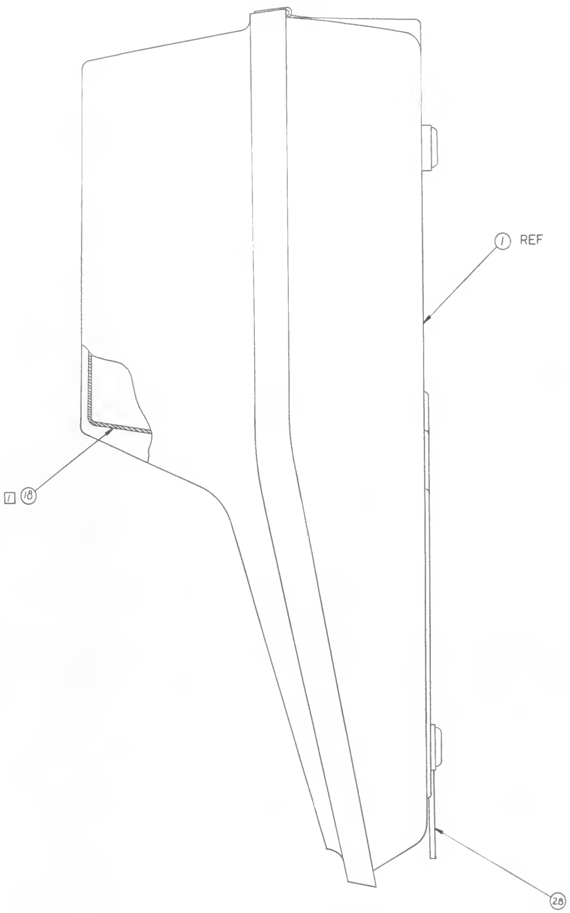
SIZE	CODE IDENT NO	DRAWING NO.
E	96214	2207400

SCALE NONE SHEET 1 OF 2

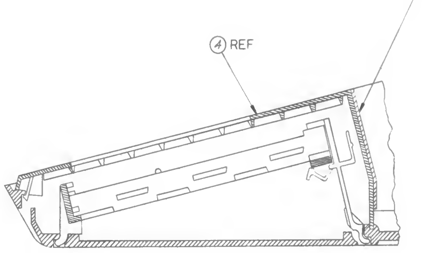
2207400

REVISIONS

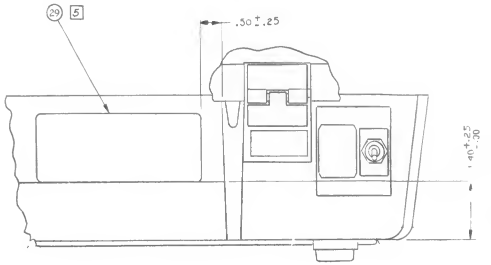
ZONE	LTR	DESCRIPTION	DATE	APPROVED



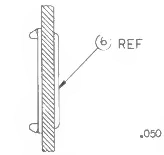
VIEW C-C
SH I (A-3)



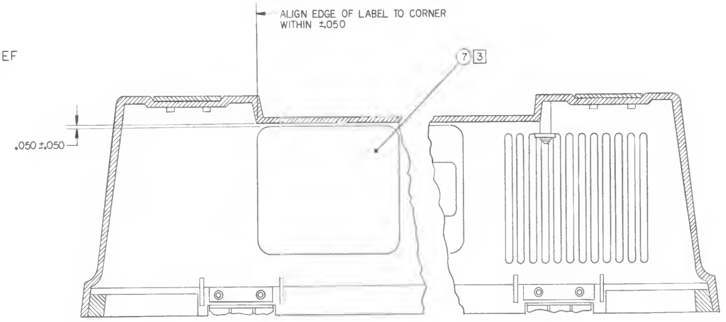
SECTION A-A
SH I (A-4)
ROTATED 90° CLOCKWISE



VIEW E-E
SH I (G-7)
ROTATED 180°



SECTION B-B
SH I (B-6)
SCALE: 2/1



SECTION D-D
SH I (F-8)

E 2207400

2	1	ITEM NO	TEXAS INSTRUMENTS	GOVT OR INDUSTRY	NOMENCLATURE OR DESCRIPTION
QTY REQD			PART OR IDENTIFYING NO		

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES

.013 THRU .125	+.004 -.001	.251 THRU .500	+.006 -.001
.126 THRU .250	+.005 -.001	.501 THRU .750	+.008 -.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100

NEXT ASSY | USED ON
APPLICATION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02

MATERIAL

DR S. Stevens DATE 7-2-79
CHK
ENGR
APPD
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS
INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

TITLE
825 KSR TERMINAL ASSY,
10 CPI

SIZE E | CODE S | DRAWING NO. 2207400
SCALE | REV. M | SHEET 2

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV          DESCRIPTION...........................
2207400-0101     M          825 KSR TERMINAL-STD PRNT 115V

ITEM.       QUANTITY.    COMPONENT..  DESCRIPTION............................  UM

0001        00001.000    2207405-0101   825 TERMINAL,BASIC-115V,10 CPI              EA
                                        1221-1405-000
0004        00001.000    0999746-0001   PLENUM,PWB                                  EA
                                        1255-1020-035
0005        00001.000    0999747-0001   INSULATOR, SOUND AIR PLENUM                 EA

0006        00001.000    0999748-0001   COVER,TEST                                  EA
                                        1255-1021-015
0007        00001.000    0994351-0002   LABEL,CONFIGURATION,820 KSR                 EA
                                        1221-1351-000
0008        00001.000    0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                 EA
                                        000494-116-2801-163
0009        00001.000    2207425-9701   MANUAL,USER GUIDE                           EA
                                        1221-1425-000
0010        00000.020    0996472-0001   PAPER,CPO-1 PART PREMIUM                    EA
                                        093287-1412RH
0012        00001.000    0999456-9701   MANUAL,INFORMATION REQUEST FORM             EA
                                        1225-9456-000
0016         REF         2362803-0001   PACKING ASSY 820 PRINTER                    EA

0017        00001.000    0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS      EA
                                        1221-1860-000
0018        00001.000    0999713-0001   WINDOW, TERMINAL                            EA
                                        1255-1008-022
0023        00000.000    0994472-0001   SERVICE KIT,MODEL 810 PRINTER               EA
                                        1221-4472-000
0025        00001.000    0996289-0001   CORD SET,3-PIN PWR-DOMESTIC BLACK           EA
                                        080126-0-7889-008-GY
0026        00000.000    0996289-0002   CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP     EA
                                        080126-0-7919-008-GY
0026A                                   ITEM 26 MAY BE USED IN
                                        080126-0-7919-008-GY
0026B                                   PLACE OF ITEM 25
                                        080126-0-7919-008-GY
0028        00001.000    2207426-0001   CARD CARRIER ASSY, 825 KSR                  EA
                                        1221-1426-001
0029        00001.000    2361102-0032   LABEL,ID,825 KSR-STD PRNT                   EA
                                        1221-2332-000
0030         REF         2207416-0001   INTERCONNECTION DIAGRAM,820/825             EA

0031        00001.000    2207636-9701   INST. PROC., OMNI 800, MODEL 820 KSR        EA
                                        1221-1636-000
0041        00001.000    2360001-0001   TAG,BEARING                                 EA
                                        7690-2000-000
9999        00000.000    0239999-9999   COST, SHRINKAGE                             EA
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02/05/83

PART NUMBER    REV          DESCRIPTION...........................
2207400-0201     M          825 KSR TERMINAL-STD PRNT 220V

ITEM.       QUANTITY.    COMPONENT..  DESCRIPTION............................  UM

0001        00001.000    2207405-0201   825 TERMINAL,BASIC-220V,10 CPI              EA
                                        1221-3405-000
0004        00001.000    0999746-0001   PLENUM,PWB                                  EA
                                        1255-1020-035
0005        00001.000    0999747-0001   INSULATOR, SOUND AIR PLENUM                 EA

0006        00001.000    0999748-0001   COVER,TEST                                  EA
                                        1255-1021-015
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2207400-0201    M         825 KSR TERMINAL-STD PRNT 220V

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.............................. UM

0007      00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR                 EA
                                     1221-1351-000
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                 EA
                                     000494-116-2801-163
0009      00001.000   2207425-9701   MANUAL,USER GUIDE                           EA
                                     1221-1425-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                    EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM             EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                    EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS      EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                            EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER               EA
                                     1221-4472-000
0025      00001.000   0996290-0001   CORDSET,POWR-WEST EURO-RT ANGLE PLUG        EA

0028      00001.000   2207426-0001   CARD CARRIER ASSY, 825 KSR                  EA
                                     1221-1426-001
0029      00001.000   2361102-0033   LABEL,ID,825 KSR-STD PRNT                   EA
                                     1221-2333-000
0030       REF        2207416-0001   INTERCONNECTION DIAGRAM,820/825             EA

0031      00001.000   2207636-9701   INST. PROC., OMNI 800, MODEL 820 KSR        EA
                                     1221-1636-000
0032      00000.000   0996694-0001   CABLE ASSY,PWR,ELEC (INTERNATIONAL)         EA
                                     080126-64-1-075
0032A                                MAY BE USED IN PLACE OF
                                     080126-64-1-075
0032B                                ITEM 25
                                     080126-64-1-075
0041      00001.000   2360001-0001   TAG,BEARING                                 EA
                                     7690-2000-000
9999      00000.000   0239999-9999   COST, SHRINKAGE                             EA
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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2207400-0401    M         825 KSR TERMINAL-STD PRNT BPO 220V

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.............................. UM

0001      00001.000   2207405-0401   825 TERMINAL, BASIC-220V, 10 CPI (BPO)      EA
                                     1221-5405-000
0004      00001.000   0999746-0001   PLENUM,PWB                                  EA
                                     1255-1020-035
0005      00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM                 EA

0006      00001.000   0999748-0001   COVER,TEST                                  EA
                                     1255-1021-015
0007      00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR                 EA
                                     1221-1351-000
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                 EA
                                     000494-116-2801-163
0009      00001.000   2207425-9701   MANUAL,USER GUIDE                           EA
                                     1221-1425-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                    EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM             EA
                                     1225-9456-000
```

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207400-0401	M	825 KSR TERMINAL-STD PRNT BPO 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996695-0001	CABLE,POWER W/O PLUG (INTL.) 080126-107-2-093	EA
0028	00001.000	2207426-0001	CARD CARRIER ASSY, 825 KSR 1221-1426-001	EA
0029	00001.000	2361102-0034	LABEL,ID,825 KSR-STD PRNT BPO 1221-2334-000	EA
0030	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0031	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207400-0801	M	825 KSR TERMINAL-STD PRNT JPN 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	2207405-0801	825 TERMINAL,BASIC-115V,10CPI,KATAKANA 1221-0000-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207425-9701	MANUAL,USER GUIDE 1221-1425-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0014	00001.000	0999457-9701	MANUAL,FIELD SERVICE FLYER 1209-1457-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00001.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207400-0801    M         825 KSR TERMINAL-STD PRNT JPN 115V

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

0026A                              ITEM 26 MAY BE USED
                                   080126-0-7919-008-GY
0026B                              IN PLACE OF ITEM 25
                                   080126-0-7919-008-GY
0027       REF        2207416-0001 INTERCONNECTION DIAGRAM,820/825        EA

0028      00001.000   2207426-0001 CARD CARRIER ASSY, 825 KSR             EA
                                   1221-1426-001
0029      00001.000   2361102-0035 LABEL,ID,825 KSR-STD PRNT VDE          EA
                                   1221-2335-000
0031      00001.000   2207636-9701 INST. PROC., OMNI 800, MODEL 820 KSR   EA
                                   1221-1636-000
9999      00001.000   0239999-9999 COST, SHRINKAGE                        EA
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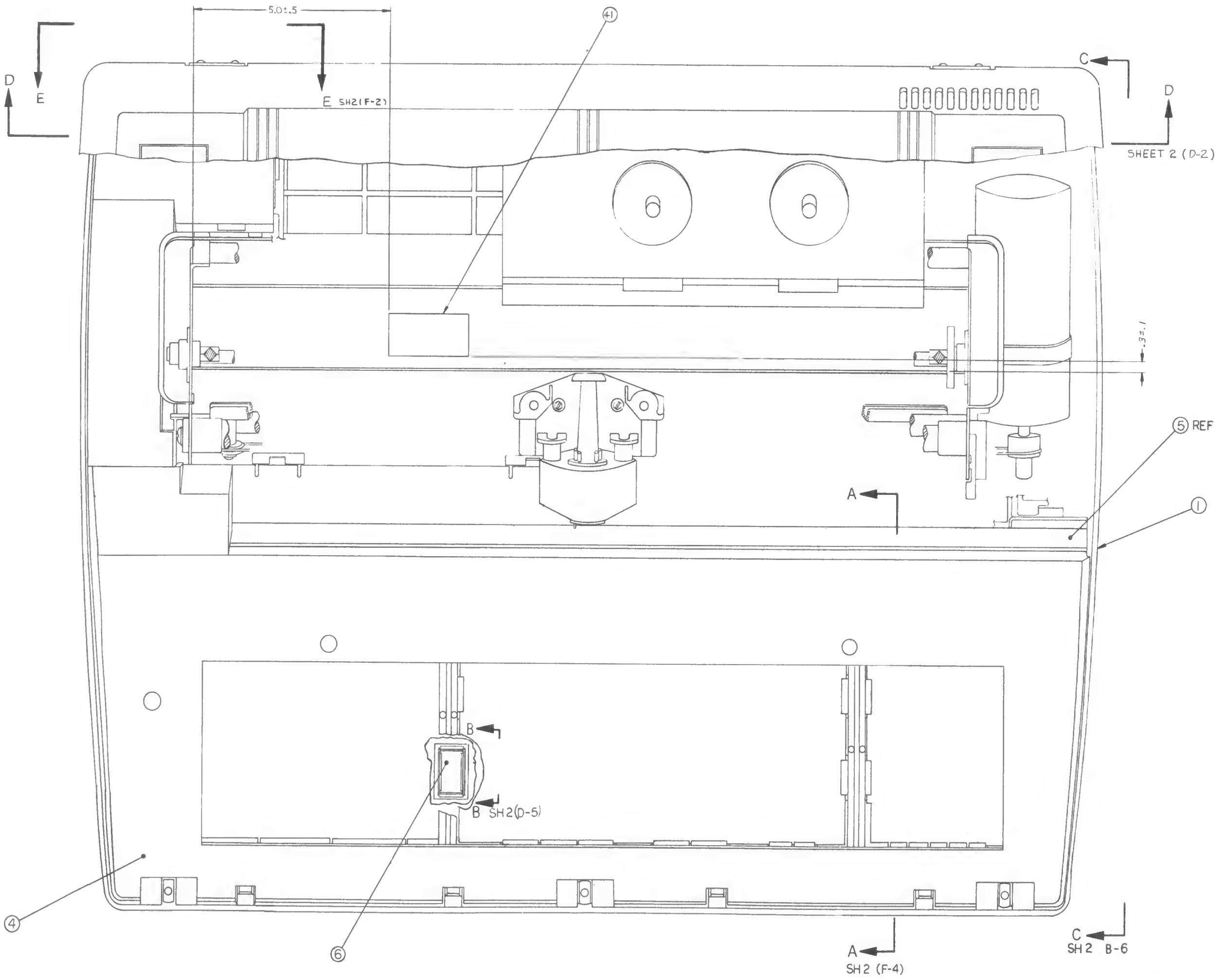
NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRACHES WHEN VIEWED FROM VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.
2. INSTALL ITEM 28 IN SOCKET U12 ON THE PWB ASSEMBLY.
3. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.
4. ~~INSTALL IDENTIFICATION LABEL, PN 2361102, TO LEFT INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~
5. A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE TI IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN444016 (E) S.Dodson (1) ALL LM'S ITEM 8 WAS 996704-1	12/4/79	A Dodson
	B	CN455627 (E) S.Dodson (1) -101, -201 & -401 ADDED ITEM 29 & 30 (2) -401 ITEM 26 WAS 996348-1	2-12-80	S Dodson
	C	CN 460055 (D) K.Nguyen (1) REVISED PER EXTENSIVE ENG CHANGES.	3/26/80	S Dodson
	D	CN 452373 (E) J. HIGGINBOTHAM (1) ON ALL DASH NO.S ADDED ITEM 31	5/20/80	S Dodson
	E	CN452619 (D) S.Dodson (1) ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80	S Dodson
	F	CN469186 (B) M Kuhn (1) ADDED VIEW E-E (2) ON -0101 LM, ADDED ITEM 40	4/10/81	D.K. Anderson
	G	CN465732 (D) C [illegible] (1) ADDED NOTE 5	3/6/81	[illegible]
	H	CN 477840 (D) D. Howard (1.) QNTY OF IT. 23 WAS 1.0, ADDED IT. 41.	10-19-81	M Henck
	J	CN 486812 (C) D. Howard (1) DEL IT 14 ON ALL LM'S	12-9-81	S Dodson
	K	CN507011 (D) PRUNYON (1) DEL ITEM 40 ON -0101 LM (2) SH2 VIEW E-E DEL DIM 1.25±.25 AND .40±.10 (3) TITLE WAS 825 KSR TERMINAL ASSY	2-2-83	[illegible]
	L	CN497291 (C) PRUNYON (1) ON -0201 LM ITEM 26 P/N WAS 0996290-0001 (2) ON -0401 LM ITEM 26 P/N WAS 0996695-0001	4-25-83	[illegible]



PART NUMBER	DESCRIPTION
2207409-0801	825 KSR TERMINAL-COMP PR 115V, JPN
2207409-0401	825 KSR TERMINAL ASSY 220V, (BPO) 10/16 CPI
2207409-0201	825 KSR TERMINAL ASSY, 220 V, 10/16 CPI
2207409-0101	825 KSR TERMINAL ASSY, 115 V, 10/16 CPI

REV STATUS OF SHEETS	REV	L	K		
	SH	1			

QTY REQD 2	QTY REQD 1	ITEM NO	TEXAS INSTRUMENTS PART OR IDENTIFYING NO	GOVT OR INDUSTRY PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES			
.013 THRU .125	+.004 −.001	.251 THRU .500	+.006 −.001
.126 THRU .250	+.005 −.001	.501 THRU .750	+.008 −.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100

NEXT ASSY	USED ON
2207449	8740

APPLICATION
300

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
MATERIAL

DR S. Stevens DATE 7-2-79
CHK Dave Stavens 7/22/79
ENGR Charlie Haynes 7/30/79
APPD Dennis P. Lutche 7/30/79
CONTR NO. [illegible] Lyn Baird
DESIGN ACTIVITY RELEASE [illegible] 7/30/79
C Bradford 7/30/79

TEXAS INSTRUMENTS INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

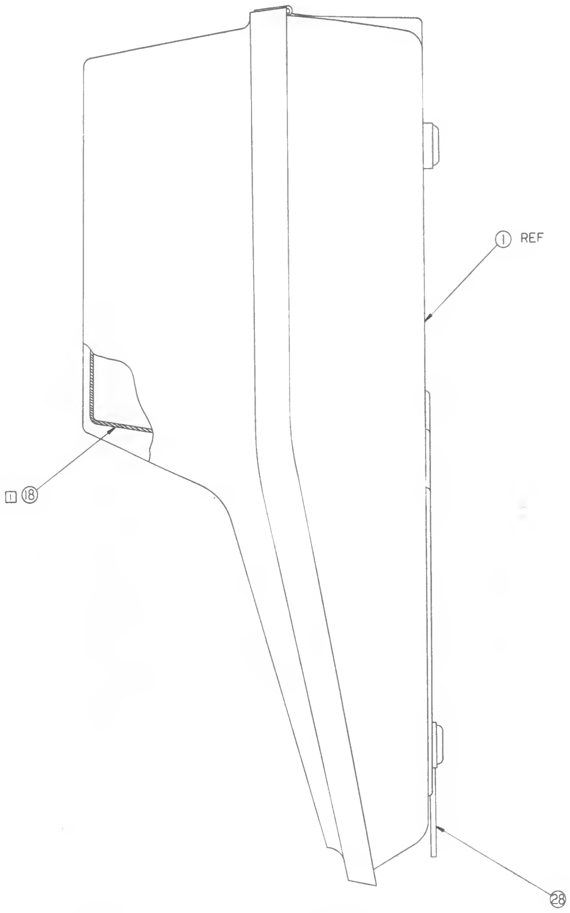
TITLE 825 KSR TERMINAL ASSY 10/16 CPI

SIZE E
CODE IDENT NO 96214
DRAWING NO 2207409
SCALE NONE
SHEET 1 OF 2

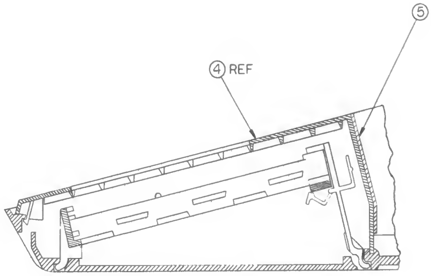
1 M

2207409 E

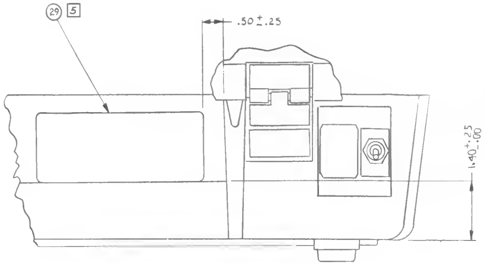
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED



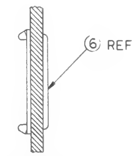
VIEW C-C
SH I (A-3)



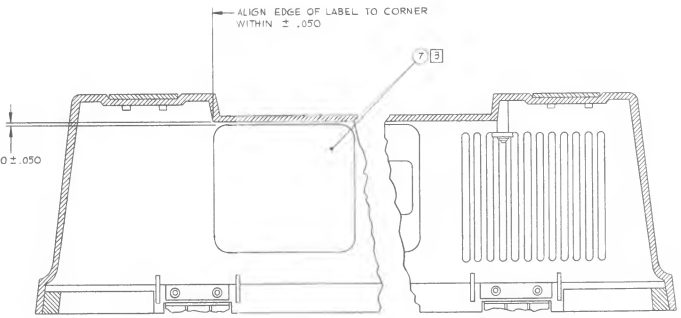
SECTION A-A
SH I (A-4)
ROTATED 90° CLOCKWISE



VIEW E-E
SH I (G-7)
ROTATED 180°



SECTION B-B
SH I (B-6)
SCALE: 2/1



SECTION D-D
SHEET I (F-3)

2	1	ITEM NO	TEXAS INSTRUMENTS	GOVT OR INDUSTRY	NOMENCLATURE OR DESCRIPTION
QTY REQD			PART OR IDENTIFYING NO		

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES			
.013 THRU .125	+.004 −.001	.251 THRU .500	+.006 −.001
.126 THRU .250	+.005 −.001	.501 THRU .750	+.008 −.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100

NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
MATERIAL

DR J. Stevens DATE 7-2-79
CHK
ENGR
APPD
CONTR NO
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS
INCORPORATED
APPARATUS DIVISION DALLAS TEXAS

TITLE 825 KSR TERMINAL ASSY, 10/16 CPI

SIZE E
DRAWING NO 2207409
SCALE
SHEET 2

E 2207409 G

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207409-0101    K         825 KSR TERMINAL-COMP PR  115V

ITEM.      QUANTITY.     COMPONENT..  DESCRIPTION............................ UM

0001       00001.000   2207405-0102   825 TERMINAL,BASIC-115V,10/16 CPI         EA
                                      1221-2405-000
0004       00001.000   0999746-0001   PLENUM,PWB                                EA
                                      1255-1020-035
0005       00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM               EA

0006       00001.000   0999748-0001   COVER,TEST                                EA
                                      1255-1021-015
0007       00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR               EA
                                      1221-1351-000
0008       00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE               EA
                                      000494-116-2801-163
0009       00001.000   2207425-9701   MANUAL,USER GUIDE                         EA
                                      1221-1425-000
0010       00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                  EA
                                      093287-1412RH
0012       00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM           EA
                                      1225-9456-000
0016        REF        2362803-0001   PACKING ASSY 820 PRINTER                  EA

0017       00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS    EA
                                      1221-1860-000
0018       00001.000   0999713-0001   WINDOW, TERMINAL                          EA
                                      1255-1008-022
0023       00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER             EA
                                      1221-4472-000
0025       00001.000   0996289-0001   CORD SET,3-PIN PWR-DOMESTIC BLACK         EA
                                      080126-0-7889-008-GY
0026       00000.000   0996289-0002   CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP   EA
                                      080126-0-7919-008-GY
0026A                                 ITEM 26 MAY BE USED IN
                                      080126-0-7919-008-GY
0026B                                 PLACE OF ITEM 25
                                      080126-0-7919-008-GY
0028       00001.000   2207426-0001   CARD CARRIER ASSY, 825 KSR                EA
                                      1221-1426-001
0029       00001.000   2361102-0037   LABEL,ID,825 KSR-COMP PR                  EA
                                      1221-2337-000
0030        REF        2207416-0001   INTERCONNECTION DIAGRAM,820/825           EA

0031       00001.000   2207636-9701   INST. PROC., OMNI 800, MODEL 820 KSR      EA
                                      1221-1636-000
0041       00001.000   2360001-0001   TAG,BEARING                               EA
                                      7690-2000-000
9999       00000.000   0239999-9999   COST, SHRINKAGE                           EA
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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207409-0201    K         825 KSR TERMINAL-COMP PR 220V

ITEM.      QUANTITY.     COMPONENT..  DESCRIPTION............................ UM

0001       00001.000   2207405-0202   825 TERMINAL,BASIC-220V,10/16 CPI         EA
                                      1221-4405-000
0004       00001.000   0999746-0001   PLENUM,PWB                                EA
                                      1255-1020-035
0005       00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM               EA

0006       00001.000   0999748-0001   COVER,TEST                                EA
                                      1255-1021-015
0007       00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR               EA
                                      1221-1351-000
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207409-0201    K         825 KSR TERMINAL-COMP PR 220V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION........................... UM

0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE              EA
                                     000494-116-2801-163
0009      00001.000   2207425-9701   MANUAL,USER GUIDE                        EA
                                     1221-1425-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                 EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM          EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                 EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS   EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                         EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER            EA
                                     1221-4472-000
0026      00001.000   0996290-0001   CORDSET,POWR-WEST EURO-RT ANGLE PLUG     EA

0028      00001.000   2207426-0001   CARD CARRIER ASSY, 825 KSR               EA
                                     1221-1426-001
0029      00001.000   2361102-0038   LABEL,ID,825 KSR-COMP PR                 EA
                                     1221-2338-000
0030       REF        2207416-0001   INTERCONNECTION DIAGRAM,820/825          EA

0031      00001.000   2207636-9701   INST. PROC., OMNI 800, MODEL 820 KSR     EA
                                     1221-1636-000
0041      00001.000   2360001-0001   TAG,BEARING                              EA
                                     7690-2000-000
9999      00000.000   0239999-9999   COST, SHRINKAGE                          EA
```

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207409-0401    K         825 KSR TERMINAL-COMP PR BPO  220V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION........................... UM

0001      00001.000   2207405-0402   825 TERMINAL, BASIC-220V, 10/16 CPI(BPO) EA
                                     1221-6405-000
0004      00001.000   0999746-0001   PLENUM,PWB                               EA
                                     1255-1020-035
0005      00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM              EA

0006      00001.000   0999748-0001   COVER,TEST                               EA
                                     1255-1021-015
0007      00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR              EA
                                     1221-1351-000
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE              EA
                                     000494-116-2801-163
0009      00001.000   2207425-9701   MANUAL,USER GUIDE                        EA
                                     1221-1425-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                 EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM          EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                 EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS   EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                         EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER            EA
                                     1221-4472-000
```

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207409-0401	K	825 KSR TERMINAL-COMP PR BPO 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0026	00001.000	0996695-0001	CABLE,POWER W/O PLUG (INTL.) 080126-107-2-093	EA
0028	00001.000	2207426-0001	CARD CARRIER ASSY, 825 KSR 1221-1426-001	EA
0029	00001.000	2361102-0039	LABEL,ID,825 KSR-COMP PR BPO 1221-2339-000	EA
0030	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0031	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

02/05/83

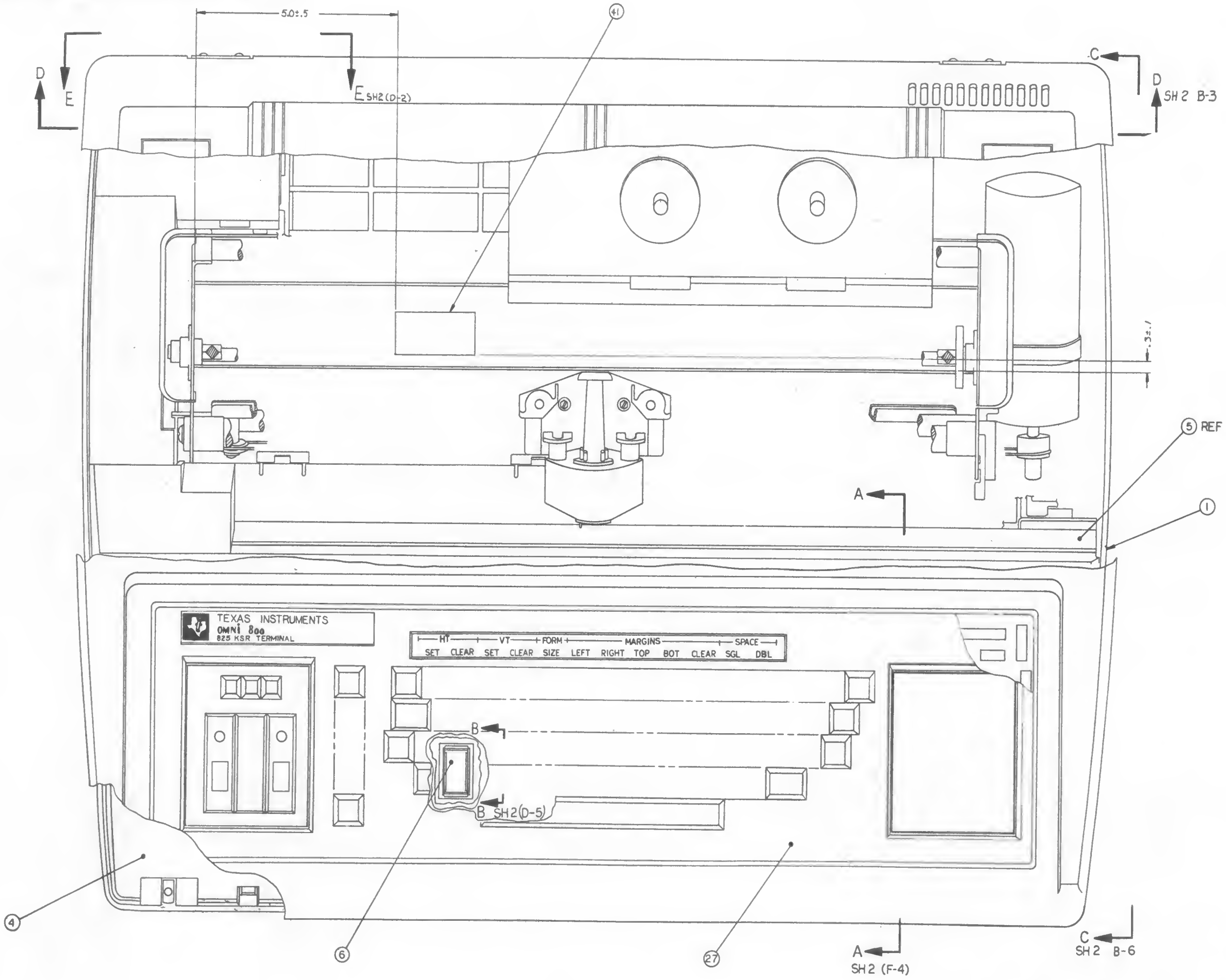
PART NUMBER	REV	DESCRIPTION............................
2207409-0801	K	825 KSR TERMINAL-COMP PR JPN 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0001	00001.000	2207405-0802	825 TERMINAL,BASIC-115V,10/16CPI,KATAKAN 1221-0000-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207425-9701	MANUAL,USER GUIDE 1221-1425-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED 080126-0-7919-008-GY	
0026B			IN PLACE OF ITEM 25 080126-0-7919-008-GY	
0027	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0028	00001.000	2207426-0001	CARD CARRIER ASSY, 825 KSR 1221-1426-001	EA
0029	00001.000	2361102-0041	LABEL,ID,825 KSR-COMP PR JPN 1221-2341-000	EA
0031	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA

NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRACHES WHEN VIEWED FROM VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.
2. INSTALL ITEM 28 IN SOCKET U12 ON THE PWB ASSEMBLY.
3. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.
4. ~~INSTALL IDENTIFICATION LABEL, PN 2361102, TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET-2 OF THIS DRAWING.~~
5. A CUSTOMER "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE T.I. IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER

ZONE	LTR	DESCRIPTION	DATE
	A	CN433[illegible] (1)ADDED ITEM 24 [illegible] -0101 -0201 [illegible] (2)ADDED ITEM 30 TO [illegible]-0401	[illegible]
	B	CN444016 (E) (1)ALL LM'S ITEM 8 WAS 996704-1	[illegible]
	C	CN434065 (C) (1)-201 + -401 ITEM 27 WAS 2207418-0102	[illegible]
	D	CN 455627 (E) (1) ADDED ITEM 29 & 31 TO -101-201-401 (2) -401 ITEM 25 WAS 996348-1.	[illegible]
	E	CN 454949 (D) J. HIGGINBOTHAM (1) ON -201 -401 ITEM 24 WAS 0993205-1	[illegible]
	F	CN460057(D) (1)REV. PER EXT. ENG. CHANGES (NO MICROFILM AVAILABLE)	7/21/80
	G	CN452373(E) (1)ON ALL DASH NOS ADDED ITEM 35 (NO MICROFILM AVAILABLE.)	[illegible]
	H	CN458439(D) (1)ON -101 AND -801 ITEM 24 P/N WAS 0993205-1	[illegible]
	J	CN452619 (D) (1)ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80
	K	CN469186 (B) (1)ADDED VIEW E-E (2)ON -0101 LM, ADDED ITEM 40	2/10/81
	L	CN465732(D) (1)ADDED NOTE 5	3-6-81
	M	CN 477840 (D) D. Howard (1) QNTY OF IT 23 WAS 1.0, ADDED IT. 41.	10-14-81
	N	486812 (C) D. Howard (1) DEL IT 14 ON ALL LM'S	12-9-81
	P	CN506684(D)PRUNTY (1)DEL ITEM 40 ON -0101LM (2)SH2 VIEW E-E DEL DIMS 1.25±.25 AND .40±.10	2-2-83
	R	CN497288(C)PRUNTY (1)ON -0201LM ITEM 25 P/N WAS 0996290-0001 (2)ON -0401LM ITEM 25 P/N WAS 0996695-0001	4-26-83



PART NUMBER	DESCRIPTION
2207415-0801	825 KSR TERMINAL-PACKAGE, 115V, JPN
2207415-0401	825 KSR PACKAGE, 220V, (BPO) 10/16 CPI
2207415-0201	825 KSR PACKAGE, 220V, 10/16 CPI FULL ASC II
2207415-0101.	825 KSR PACKAGE, 115V, 10/16 CPI FULL ASC II

-2	-1	ITEM NO	TEXAS INSTRUMENTS	GOVT OR INDUSTRY	NOMENCLATURE OR DESCRIPTION
QTY REQD			PART OR IDENTIFYING NO		

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES			
.013 THRU .125	+.004 -.001	.251 THRU .500	+.006 -.001
.126 THRU .250	+.005 -.001	.501 THRU .750	+.008 -.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100

NEXT ASSY	USED ON
2207449	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
MATERIAL:

DR John Muney DATE 6-18-79
CHK
ENGR Charlie Hayes 7-30-79
APPD
CONTR NO.
DESIGN ACTIVITY RELEASE
Bradford Yates

TEXAS INSTRUMENTS
INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

TITLE 825 KSR PACKAGE,

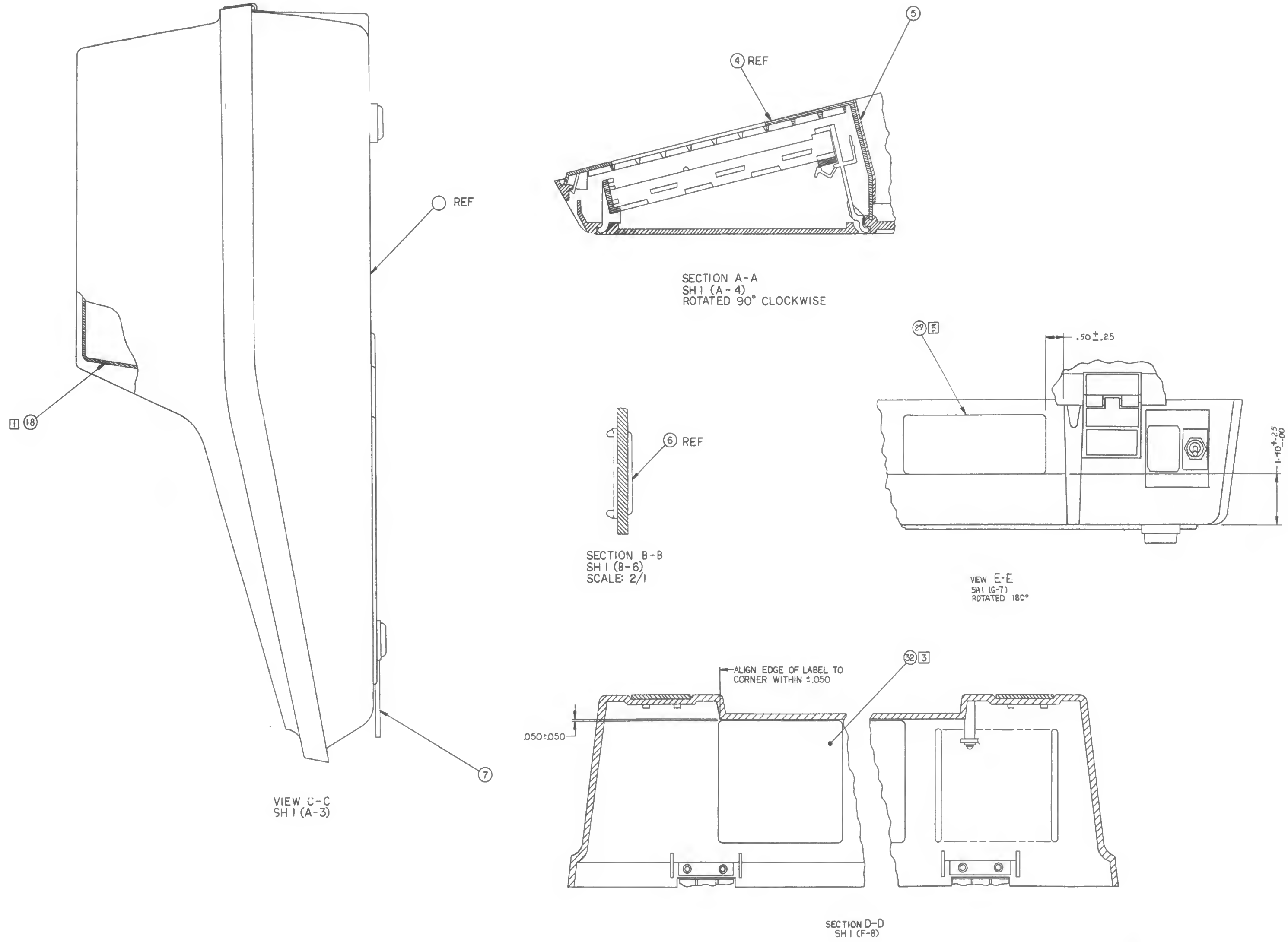
SIZE	CODE IDENT NO.	DRAWING NO.
E	96214	2207415 FILMED

SCALE SHEET

E 2207415

307

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED



-2	-1	ITEM NO	TEXAS INSTRUMENTS PART OR IDENTIFYING NO	GOVT OR INDUSTRY PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
QTY REQD					

PARTS LIST

UNLESS OTHERWISE SPECIFIED

REMOVE ALL BURRS AND SHARP EDGES

CONCENTRICITY MACHINED DIAMETERS .004 TIR

DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES

.013 THRU .125	+.004 −.001	.251 THRU .500	+.006 −.001
.126 THRU .250	+.005 −.001	.501 THRU .750	+.006 −.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100

NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02

MATERIAL:

DR DATE 7-2-79
CHK
ENGR
APPD
CONTR NO.
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS
INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

TITLE

SIZE	CODE IDENT NO.	DRAWING NO.
E	96214	2207415

SCALE 1/1

E 2207415

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2207415-0101    P         825 KSR TERMINAL-PACKAGE  115V

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0001      00001.000   2207405-0102   825 TERMINAL,BASIC-115V,10/16 CPI           EA
                                     1221-2405-000
0004      00001.000   0999746-0001   PLENUM,PWB                                  EA
                                     1255-1020-035
0005      00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM                 EA

0006      00001.000   0999748-0001   COVER,TEST                                  EA
                                     1255-1021-015
0007      00001.000   2207426-0001   CARD CARRIER ASSY, 825 KSR                  EA
                                     1221-1426-001
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                 EA
                                     000494-116-2801-163
0009      00001.000   2207425-9701   MANUAL,USER GUIDE                           EA
                                     1221-1425-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                    EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM             EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                    EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS      EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                            EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER               EA
                                     1221-4472-000
0024      00001.000   2207634-0001   CABLE ASSY,ASYNCH/SYNCH EIA                 EA
                                     1221-1634-037
0025      00001.000   0996289-0001   CORD SET,3-PIN PWR-DOMESTIC BLACK           EA
                                     080126-0-7889-008-GY
0026      00000.000   0996289-0002   CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP     EA
                                     080126-0-7919-008-GY
0026A                                ITEM 26 MAY BE USED IN
                                     080126-0-7919-008-GY
0026B                                PLACE OF ITEM 25
                                     080126-0-7919-008-GY
0027      00001.000   2207418-0102   KEYBOARD,FULL ASCII W/NUMERIC PAD 825       EA
                                     1221-2418-001
0028      00001.000   0999836-0001   DEVICE/FORMS CONTROL OPTION                 EA
                                     1221-1836-001
0029      00001.000   2361102-0042   LABEL,ID,825 KSR PACKAGE                    EA
                                     1221-2342-000
0031       REF        2207416-0001   INTERCONNECTION DIAGRAM,820/825             EA

0032      00001.000   0994351-0002   LABEL,CONFIGURATION,820 KSR                 EA
                                     1221-1351-000
0034      00001.000   2361102-0042   LABEL,ID,825 KSR PACKAGE                    EA
                                     1221-2342-000
0035      00001.000   2207636-9701   INST. PROC., OMNI 800, MODEL 820 KSR        EA
                                     1221-1636-000
0041      00001.000   2360001-0001   TAG,BEARING                                 EA
                                     7690-2000-000
9999      00000.000   0239999-9999   COST, SHRINKAGE                             EA
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
2207415-0201	P	825 KSR TERMINAL-PACKAGE 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0001	00001.000	2207405-0202	825 TERMINAL,BASIC-220V,10/16 CPI 1221-4405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2207426-0001	CARD CARRIER ASSY, 825 KSR 1221-1426-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	REF	2207425-9701	MANUAL,USER GUIDE	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0024	00001.000	2207634-0001	CABLE ASSY,ASYNCH/SYNCH EIA 1221-1634-037	EA
0025	00001.000	0996290-0001	CORDSET,POWR-WEST EURO-RT ANGLE PLUG	EA
0027	00001.000	2207418-0302	KEYBOARD INTL ASCII W/NUMERIC PAD 825 1221-6418-000	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	00001.000	2361102-0043	LABEL,ID,825 KSR PACKAGE 1221-2343-000	EA
0031	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0034	00001.000	2361102-0043	LABEL,ID,825 KSR PACKAGE 1221-2343-000	EA
0035	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
2207415-0401	P	825 KSR TERMINAL-PACKAGE BPO 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..........................	UM
0001	00001.000	2207405-0402	825 TERMINAL, BASIC-220V, 10/16 CPI(BPO) 1221-6405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2207426-0001	CARD CARRIER ASSY, 825 KSR 1221-1426-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207425-9701	MANUAL,USER GUIDE 1221-1425-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0024	00001.000	2207634-0001	CABLE ASSY,ASYNCH/SYNCH EIA 1221-1634-037	EA
0025	00001.000	0996695-0001	CABLE,POWER W/O PLUG (INTL.) 080126-107-2-093	EA
0027	00001.000	2207418-0302	KEYBOARD INTL ASCII W/NUMERIC PAD 825 1221-6418-000	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	00001.000	2361102-0044	LABEL,ID,825 KSR PACKAGE BPO 1221-2344-000	EA
0030	00001.000	2207441-0001	CHAR SET,ENGLISH ASCII,825 KSR 1221-1441-000	EA
0031	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0034	00001.000	2361102-0044	LABEL,ID,825 KSR PACKAGE BPO 1221-2344-000	EA
0035	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

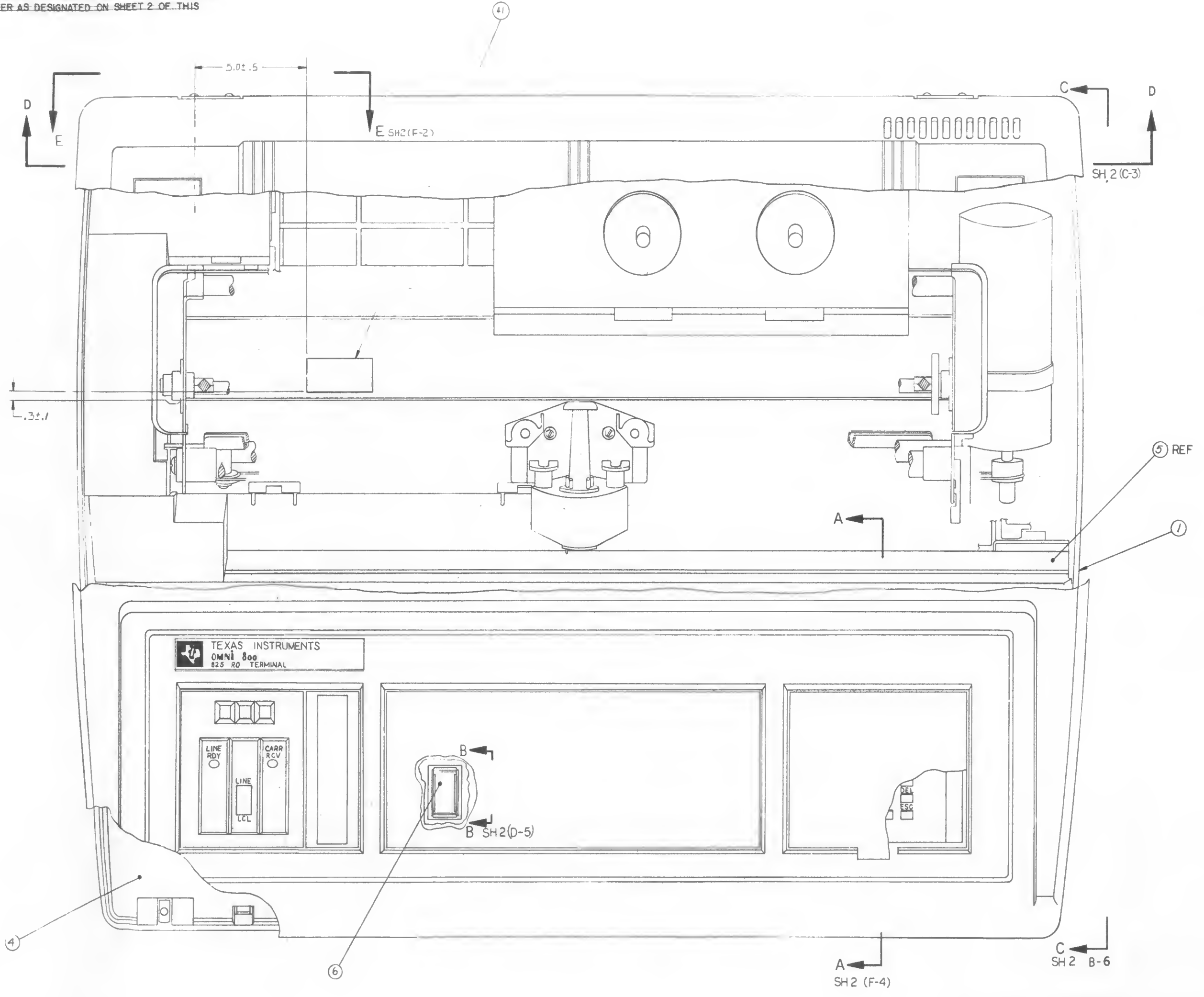
02/05/83

PART NUMBER	REV	DESCRIPTION...........................
2207415-0801	P	825 KSR TERMINAL-PACKAGE,115V,JPN

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0001	00001.000	2207405-0802	825 TERMINAL,BASIC-115V,10/16CPI,KATAKAN 1221-0000-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2207426-0001	CARD CARRIER ASSY, 825 KSR 1221-1426-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207425-9701	MANUAL,USER GUIDE 1221-1425-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1360-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0024	00001.000	2207634-0001	CABLE ASSY,ASYNCH/SYNCH EIA 1221-1634-037	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED IN 080126-0-7919-008-GY	
0026B			PLACE OF ITEM 25 080126-0-7919-008-GY	
0027	00001.000	2207424-0002	KEYBOARD, KATAKANA, W/NUM PAD, 825 1221-2424-000	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0034	00001.000	2361102-0046	LABEL,ID,825 KSR PACKAGE JPN 1221-2346-000	EA
0035	00001.000	2207636-9701	INST. PROC., OMNI 800, MODEL 820 KSR 1221-1636-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00001.000	0239999-9999	COST, SHRINKAGE	EA

NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRATCHES WHEN VIEWED FROM VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT
2. ~~INSTALL ITEM 28 IN SOCKET U12 ON THE PWB ASSEMBLY~~
3. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.
4. ~~INSTALL IDENTIFICATION LABEL, PN 2361102, TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~
5. INSTALL THE ONE BIT ROM, PN LU2361105-0001 IN SOCKET XU12 IN RO MACHINES THAT DO NOT HAVE THE DFC (MFG) OPTION. THIS ROM WILL BE REQUIRED ON 825 RO BOARDS THAT CONTAIN:
   A.) ROM ADAPTORS BOARDS
   OR
   B.) ROMS 2207430-0001 & -0002 IN SOCKETS XU9 AND XU10.
   THE ONE BIT ROM WILL NO LONGER BE REQUIRED WHEN NEW ROMS, 2207430-0003 & -0004 BECOME AVAILABLE.
6. A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE T.I. IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER



ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN 433850	8/3/79	
	B	CN433675 REKHA SETH 1)LM-0101, -0201, -0401 ITEM P N WAS 2207425-970? 2)LM-0401 ADDED ITEM 30	7-26-79	
	C	CN444016 (E) S.Dodson (1) ALL LMs ITEM 8 WAS 996704-1	11/19/79	
	D	CN455628 (E) S.Dodson (1) -101, -201 & -401 ADDED ITEM 30 & 31 (2) -401 ITEM 25 WAS 996348-1	2-12-80	S Dodson
	E	CN460058 (D) J.E.MURANY (1) RE[illegible] ENSIVE ENG CHANGES		
	F	CN452313 (E) J HIGGINBOTHAM (1) ON ALL DASH NO.S ADDED ITEM 32		S Dodson
	G	CN472347 (D) S.Dodson (1) ADDED ITEM 33 TO -201	10-10-80	
	H	CN452615 (D) S.Dodson (1) ON ALL LMS ITEM 16 WAS 2206802-1	12-1-80	
	J	CN464186 (B) [illegible] (1) ADDED VIEW E-E (2) ON -0101 LM, ADDED ITEM 40	2/1/81	
	K	CN465732 (D) S.Dodson (1) ADDED NOTE 6	3-6-81	
	L	CN477840 (D) [illegible] (1) ITEM 23 QTY WAS 1, ADDED ITEM 41	10-12-81	M Krenek
	M	CN486812 (C) D. Howard (1) DEL IT 14 ON ALL LM'S	12-9-81	
	N	CN507033 (D) PRUNYON [illegible] ITEM 40 ON -0101 LM (2) SH2 V[illegible] DEL DIMS 1.25±.25 AND .40±.1 (3) TITLE WAS 825 RO TERMINAL ASSY	2-3-83	
	P	CN497286 (C) PRUNYON (1) ON -0201 LM ITEM 25 P/N WAS 0996290-0001 (2) ON -0401 LM ITEM 25 P/N WAS 0996695-0001		

PART NUMBER	DESCRIPTION
2207406 - 0801	825 RO PRINTER-STD PRINT 115V,JPN
2207406 - 0401	825 RO TERM ASSY 220V,(BPO),10 CPI
2207406-0201	825 RO TERM ASSY,220V,10CPI
2207406-0101	825 RO TERM ASSY,115V,10CPI

REV STATUS OF SHEETS	REV	P	N
	SH	1	2

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING
DRILLED HOLE TOLERANCES
INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL STD 100

NEXT ASSY	USED ON
2207449	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ± 1°
MATERIAL

DR S. Stevens 7-2-79
CHK Dave Stamm 7/29/79
ENGR 8-2-79
APPD 7/30/79
B-8-79

TEXAS INSTRUMENTS
APPARATUS DIVISION DALLAS TEXAS

825 RO TERMINAL ASSY
10 CPI

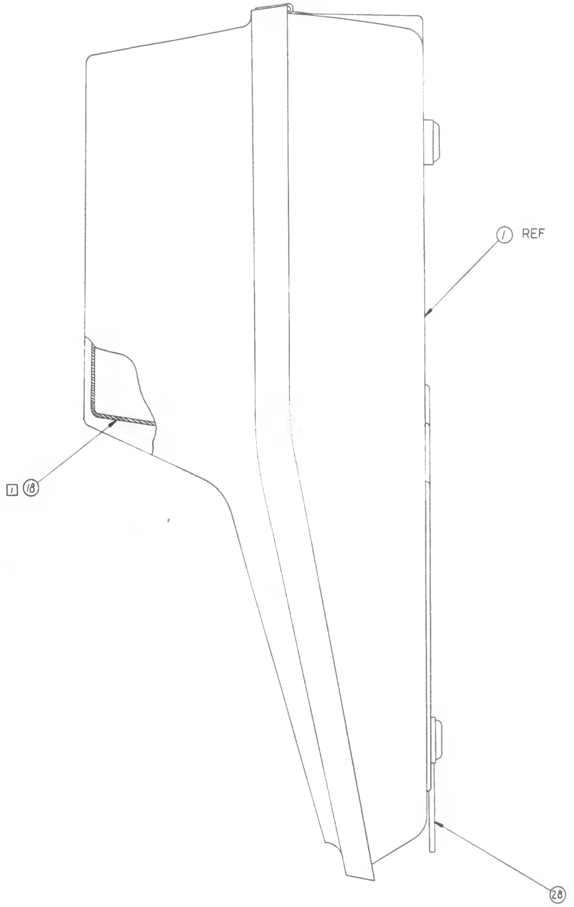
E 96214 2207406
SCALE NONE SHEET 1 OF 2

30

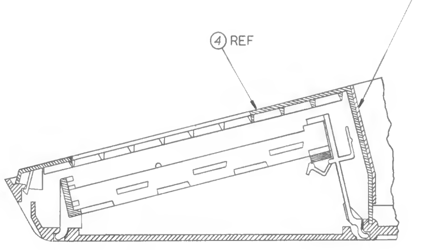
LM

E 2207406

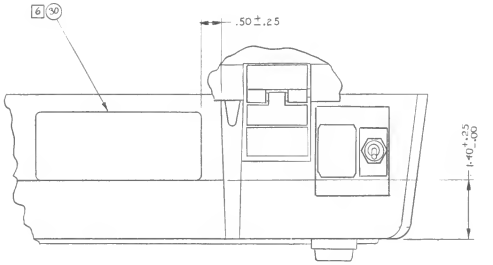
ZONE	LTR	REVISIONS DESCRIPTION	DATE	APPROVED



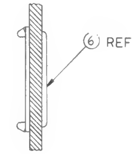
VIEW C-C
SH I (A-3)



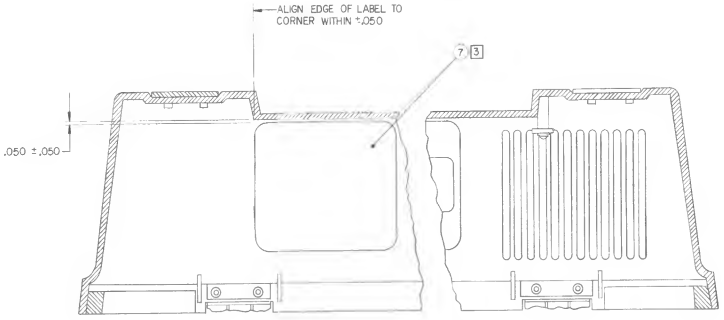
SECTION A-A
SH I (A-4)
ROTATED 90° CLOCKWISE



VIEW E-E
SH I (G-7)
ROTATED 180°



SECTION B-B
SH I (B-6)
SCALE: 2/1



SECTION D-D
SH I (F-8)

QTY REQD		ITEM NO	TEXAS INSTRUMENTS / GOVT OR INDUSTRY PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION
2	1			

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES

.013 THRU .125	+.004 −.001	.251 THRU .500	+.006 −.001
.126 THRU .250	+.005 −.001	.501 THRU .750	+.008 −.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL STD-100

NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
MATERIAL

DR	S. Stevens	DATE 7-2-79
CHK		
ENGR		
APPD		
CONTR NO.		
DESIGN ACTIVITY RELEASE		

TEXAS INSTRUMENTS
INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

TITLE ~~825 RO PRINTER~~

SIZE	CODE IDENT NO	DRAWING NO
E	96214	2207406

SCALE NONE REV N SHEET 2

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
2207406-0101	N	825 RO PRINTER -STD PRNT 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..........................	UM
0001	00001.000	2207405-0101	825 TERMINAL,BASIC-115V,10 CPI 1221-1405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207437-9701	OPERATORS/SYSTEM MANUAL 825 RO TERMINAL 1221-1437-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED AS AN 080126-0-7919-008-GY	
0026B			ALTERNATE FOR ITEM 25 080126-0-7919-008-GY	
0028	00001.000	2207431-0001	CARD CARRIER ASSEMBLY 825 RO 1221-1431-001	EA
0030	00001.000	2361102-0047	LABEL,ID,825 RO-STD PRNT 1221-2347-000	EA
0031	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
2207406-0201	N	825 RO PRINTER -STD PRNT 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..........................	UM
0001	00001.000	2207405-0201	825 TERMINAL,BASIC-220V,10 CPI 1221-3405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207406-0201    N         825 RO PRINTER -STD PRNT 220V

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0008      00001.000  0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                   EA
                                    000494-116-2801-163
0009      00001.000  2207437-9701   OPERATORS/SYSTEM MANUAL 825 RO TERMINAL       EA
                                    1221-1437-000
0010      00000.020  0996472-0001   PAPER,CPO-1 PART PREMIUM                      EA
                                    093287-1412RH
0012      00001.000  0999456-9701   MANUAL,INFORMATION REQUEST FORM               EA
                                    1225-9456-000
0016       REF       2362803-0001   PACKING ASSY 820 PRINTER                      EA

0017      00001.000  0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS        EA
                                    1221-1860-000
0018      00001.000  0999713-0001   WINDOW, TERMINAL                              EA
                                    1255-1008-022
0023      00000.000  0994472-0001   SERVICE KIT,MODEL 810 PRINTER                 EA
                                    1221-4472-000
0025      00001.000  0996290-0001   CORDSET,POWR-WEST EURO-RT ANGLE PLUG          EA

0028      00001.000  2207431-0001   CARD CARRIER ASSEMBLY 825 RO                  EA
                                    1221-1431-001
0030      00001.000  2361102-0048   LABEL,ID,825 RO-STD PRNT                      EA
                                    1221-2348-000
0031       REF       2207416-0001   INTERCONNECTION DIAGRAM,820/825               EA

0032      00001.000  2361114-9701   INSTAL INSTR OMNI 800,820/825 RO              EA
                                    1221-1114-000
0033      00000.000  0996694-0001   CABLE ASSY,PWR,ELEC (INTERNATIONAL)           EA
                                    080126-64-1-075
0033A                               MAY BE USED IN PLACE OF
                                    080126-64-1-075
0033B                               ITEM 25
                                    080126-64-1-075
0041      00001.000  2360001-000[illegible]   TAG,BEARING                               EA
                                    7690-2000-000
9999      00000.000  0239999-9999   COST, SHRINKAGE                               EA
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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207406-0401    N         825 RO PRINTER -STD PRNT BPO  220V

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001      00001.000  2207405-0401   825 TERMINAL, BASIC-220V, 10 CPI (BPO)        EA
                                    1221-5405-000
0004      00001.000  0999746-0001   PLENUM,PWB                                    EA
                                    1255-1020-035
0005      00001.000  0999747-0001   INSULATOR, SOUND AIR PLENUM                   EA

0006      00001.000  0999748-0001   COVER,TEST                                    EA
                                    1255-1021-015
0007      00001.000  0994351-0002   LABEL,CONFIGURATION,820 KSR                   EA
                                    1221-1351-000
0008      00001.000  0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                   EA
                                    000494-116-2801-163
0009      00001.000  2207437-9701   OPERATORS/SYSTEM MANUAL 825 RO TERMINAL       EA
                                    1221-1437-000
0010      00000.020  0996472-0001   PAPER,CPO-1 PART PREMIUM                      EA
                                    093287-1412RH
0012      00001.000  0999456-9701   MANUAL,INFORMATION REQUEST FORM               EA
                                    1225-9456-000
0016       REF       2362803-0001   PACKING ASSY 820 PRINTER                      EA
```

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207406-0401    N         825 RO PRINTER -STD PRNT BPO  220V

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0017      00001.000    0999860-9701    MANUAL, RIBBON & PAPER RECOMMENDATIONS    EA
                                       1221-1860-000
0018      00001.000    0999713-0001    WINDOW, TERMINAL                          EA
                                       1255-1008-022
0023      00000.000    0994472-0001    SERVICE KIT,MODEL 810 PRINTER             EA
                                       1221-4472-000
0025      00001.000    0996695-0001    CABLE,POWER W/O PLUG (INTL.)              EA
                                       080126-107-2-093
0028      00001.000    2207431-0001    CARD CARRIER ASSEMBLY 825 RO              EA
                                       1221-1431-001
0030      00001.000    2361102-0049    LABEL,ID,825 RO-STD PRNT BPO              EA
                                       1221-2349-000
0031       REF         2207416-0001    INTERCONNECTION DIAGRAM,820/825           EA

0032      00001.000    2361114-9701    INSTAL INSTR OMNI 800,820/825 RO          EA
                                       1221-1114-000
0041      00001.000    2360001-0001    TAG,BEARING                               EA
                                       7690-2000-000
9999      00000.000    0239999-9999    COST, SHRINKAGE                           EA
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```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207406-0801    N         825 RO PRINTER -STD PRNT JPN  115V

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0001      00001.000    2207405-0801    825 TERMINAL,BASIC-115V,10CPI,KATAKANA    EA
                                       1221-0000-000
0004      00001.000    0999746-0001    PLENUM,PWB                                EA
                                       1255-1020-035
0005      00001.000    0999747-0001    INSULATOR, SOUND AIR PLENUM               EA

0006      00001.000    0999748-0001    COVER,TEST                                EA
                                       1255-1021-015
0007      00001.000    0994351-0002    LABEL,CONFIGURATION,820 KSR               EA
                                       1221-1351-000
0008      00001.000    0996241-0001    RIBBON,BLACK,40 YARD-SINGLE               EA
                                       000494-116-2801-163
0009      00001.000    2207437-9701    OPERATORS/SYSTEM MANUAL 825 RO TERMINAL   EA
                                       1221-1437-000
0010      00000.020    0996472-0001    PAPER,CPO-1 PART PREMIUM                  EA
                                       093287-1412RH
0012      00001.000    0999456-9701    MANUAL,INFORMATION REQUEST FORM           EA
                                       1225-9456-000
0016       REF         2362803-0001    PACKING ASSY 820 PRINTER                  EA

0017      00001.000    0999860-9701    MANUAL, RIBBON & PAPER RECOMMENDATIONS    EA
                                       1221-1860-000
0018      00001.000    0999713-0001    WINDOW, TERMINAL                          EA
                                       1255-1008-022
0023      00000.000    0994472-0001    SERVICE KIT,MODEL 810 PRINTER             EA
                                       1221-4472-000
0025      00001.000    0996289-0001    CORD SET,3-PIN PWR-DOMESTIC BLACK         EA
                                       080126-0-7889-008-GY
0026      00000.000    0996289-0002    CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP   EA
                                       080126-0-7919-008-GY
0026A                                  ITEM 26 MAY BE USED AS AN
                                       080126-0-7919-008-GY
0026B                                  ALTERNATE FOR ITEM 25
                                       080126-0-7919-008-GY
0027       REF         2207416-0001    INTERCONNECTION DIAGRAM,820/825           EA
```

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION...........................
2207406-0801    N         825 RO PRINTER -STD PRNT JPN  115V

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0028      00001.000  2207431-0001   CARD CARRIER ASSEMBLY 825 RO              EA
                                    1221-1431-001
0030      00001.000  2361102-0051   LABEL,ID,825 RO-STD PRNT JPN              EA
                                    1221-2351-000
0032      00001.000  2361114-9701   INSTAL INSTR OMNI 800,820/825 RO          EA
                                    1221-1114-000
0041      00001.000  2360001-0001   TAG,BEARING                               EA
                                    7690-2000-000
9999      00001.000  0239999-9999   COST, SHRINKAGE                           EA
```

NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRATCHES WHEN VIEWED FROM VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT.

2. ~~INSTALL ITEM 28 IN SOCKET U2 UN THE PWR ASSEMBLY.~~

3. MARK APPRORIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY WITH THE SALES ORDER.

4. ~~INSTALL INDENTIFICATION LABEL, PN2361102, TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING~~

5. INSTALL THE ONE BIT ROM, PNLU2361105-0001 IN SOCKET XU12 IN RO MACHINES THAT DO NOT HAVE THE DFC (MFG) OPTION. THIS ROM WILL BE REQUIRED ON 825 RO BOARDS THAT CONTAIN:
   A.) ROM ADAPTOR BOARDS
   OR
   B.) ROMS 2207430-0001 & -0002 IN SOCKETS XU9 AND XU10

   THE ONE BIT ROM WILL NO LONGER BE REQUIRED WHEN NEW ROMS, 2207430 DASH 3 & 4 BECOME AVAILABLE.

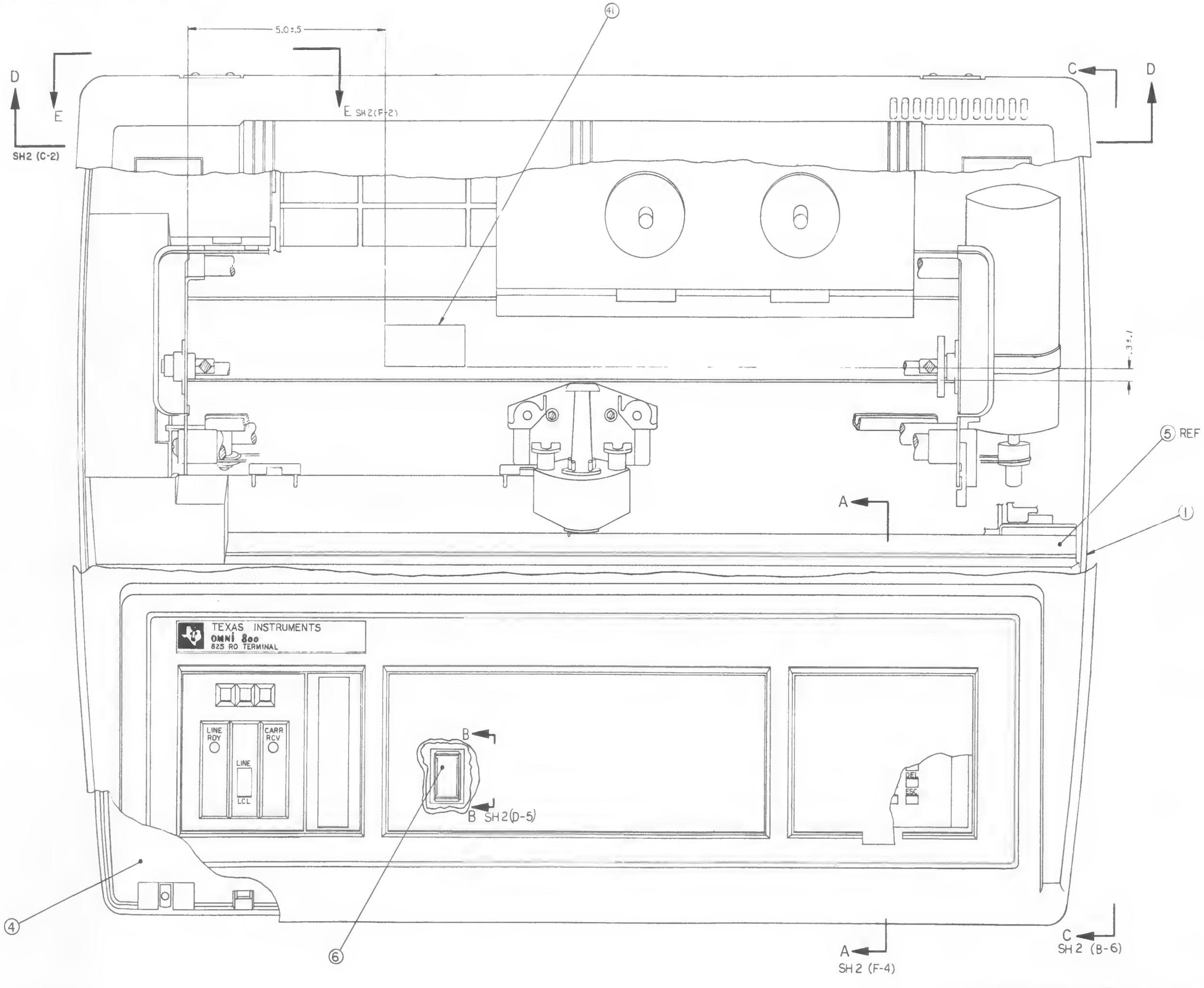
6. A CUSTOMERS 'SPECIAL' LABEL MAY BE SUBSTITUTED FOR THE T.I. IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN 433850	8/3/79	
	B	CN433675 REKHA SETH 1)LM-0101-0201-0401 ITEM 9 PN WAS 2207425-9701. 2)LM-0401 ADDED ITEM 30	9-26-79	
	C	CN444016 (E) S Dodson (1) ALL LM's ITEM 8 WAS 996704-1	12/14/79	S Dodson
	D	CN455628 (E) S Dodson (1)-101,-201 & -401 ADDED ITEM 30 + 31 (2) -401 ITEM 26 WAS 996348-1	2-12-80	S Dodson
	E	CN460059 (D) J.E. Murray (1) REVISED PER EXTENSIVE ENG CHANGES	5-1-80	S Dodson
	F	CN452313 (E) S Dodson (1) ALL LMS: ADDED ITEM 32	6-25-80	S Dodson
	G	CN457559 (E) [illegible] (1) LM -0801 ITEM 29 DELETED	9/17/80	
	H	CN452619 (D) S Dodson (1) ON ALL LM'S ITEM 16 WAS 2206802-1	12-1-80	S Dodson
	J	CN469186 (B) M Kuehn (1) ADDED VIEW E-E (2) ON -0101 LM ADDED ITEM 40	2/10/81	
	K	CN465732 (D) S Dodson (1) ADDED NOTE 6	3-6-81	S Dodson
	L	CN 477840 (D) D Howard (1) QNTY OF IT 23 WAS 1.0, ADDED IT. 41.	10-14-81	
	M	CN486812 (C) D. Howard (1) DEL IT 14 ON ALL LM'S	12-9-81	S Dodson
	N	CN507034 (D) P RUNYON (1) DEL ITEM 40 ON -0101 LM (2) SH2 VIEW E-E DEL DIMS 1.25±.25 AND .40±.10 (3) TITLE WAS 825 RO TERMINAL ASSY	2-2-83	
	P	CN497291 (C) P RUNYON (1) ON -201 LM ITEM 26 P/N WAS 0996290-0001 (2) ON -0401 LM ITEM 26 P/N WAS 0996695-0001	4-26-83	

5

23



PART NUMBER	DESCRIPTION
2207407-0801	825 RO PRINTER-COMPR PR 115V, JPN
2207407-0401	825 RO TERMINAL ASSY, 220V, 8PO 10/16 CPI
2207407-0201	825 RO TERMINAL ASSY, 220V 10/16 CPI
2207407-0101	825 RO TERMINAL ASSY, 115V, 10/16 CPI

REV STATUS OF SHEETS					
REV	P	N			
SH	1	2			

2	1	ITEM NO	TEXAS INSTRUMENTS	GOVT OR INDUSTRY	NOMENCLATURE OR DESCRIPTION
QTY REQD			PART OR IDENTIFYING NO		

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES

.013 THRU .125	+.004 -.001	.251 THRU .500	+.006 -.001
.126 THRU .250	+.005 -.001	.501 THRU .750	+.008 -.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL STD-100

NEXT ASSY	USED ON
2207449	8740

APPLICATION

300

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02

MATERIAL

DR S. Stevens DATE 6-28-79
CHK Dave Stamm 7/29/79
ENGR Dennis R Fritsche 7/30/79
APPD Charlie Haynes 8-2-79
CONTR NO [illegible] 8-2-79
DESIGN ACTIVITY RELEASE 8/3/79

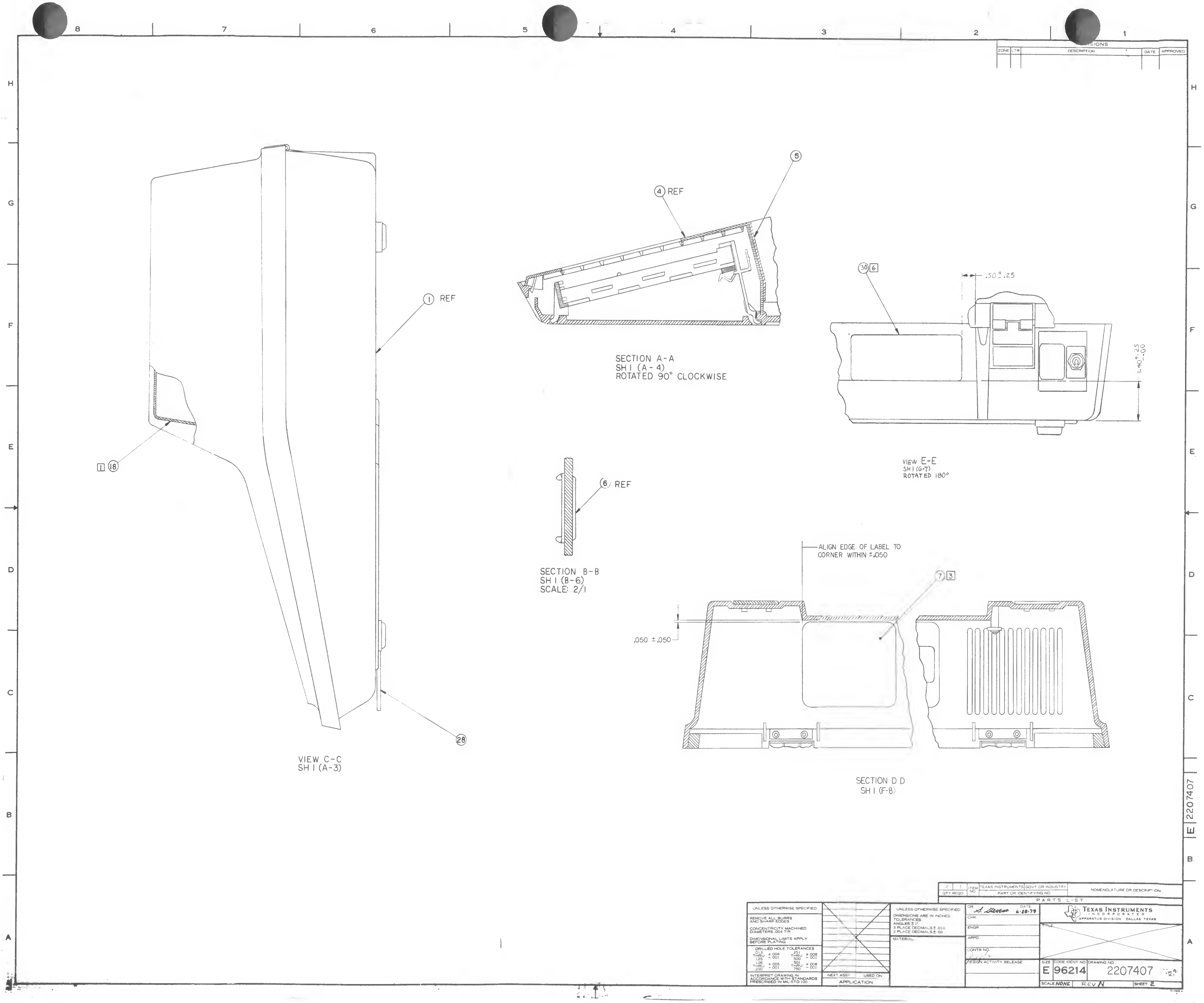
TEXAS INSTRUMENTS
INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

TITLE
825 RO TERMINAL ASSY,
10/16 CPI

SIZE E
CODE IDENT NO 96214
DRAWING NO. 2207407
SCALE NONE
SHEET 1 OF 2

M

E 2207407

REVISIONS
ZONE
LTR
DESCRIPTION
DATE
APPROVED
① REF
□1 ⑱
㉘
VIEW C-C
SH I (A-3)
④ REF
⑤
SECTION A-A
SH I (A-4)
ROTATED 90° CLOCKWISE
㉚ □6
.50 ± .25
1.40 +.25 -.00
VIEW E-E
SH I (G-7)
ROTATED 180°
⑥ REF
SECTION B-B
SH I (B-6)
SCALE: 2/1
ALIGN EDGE OF LABEL TO CORNER WITHIN ±.050
⑦ □3
.050 ±.050
SECTION D D
SH I (F-8)
E 2207407
2
1
QTY REQD
ITEM NO
TEXAS INSTRUMENTS
GOVT OR INDUSTRY
PART OR IDENTIFYING NO
NOMENCLATURE OR DESCRIPTION
PARTS LIST
UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING
DRILLED HOLE TOLERANCES
.013 THRU .125 +.004 -.001
.251 THRU .500 +.006 -.001
.126 THRU .250 +.005 -.001
.501 THRU .750 +.008 -.001
INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100
NEXT ASSY
USED ON
APPLICATION
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
MATERIAL
DR S. Stevens
DATE 6-28-79
CHK
ENGR
APPD
CONTR NO.
DESIGN ACTIVITY RELEASE
TEXAS INSTRUMENTS INCORPORATED
APPARATUS DIVISION DALLAS TEXAS
TITLE
SIZE E
CODE IDENT NO 96214
DRAWING NO 2207407
SCALE NONE
REV N
SHEET 2
A
B
C
D
E
F
G
H
1
2
3
4
5
6
7
8

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207407-0101	N	825 RO PRINTER -COMPR PR 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	2207405-0102	825 TERMINAL,BASIC-115V,10/16 CPI 1221-2405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207437-9701	OPERATORS/SYSTEM MANUAL 825 RO TERMINAL 1221-1437-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED AS AN 080126-0-7919-008-GY	
0026B			ALTERNATE FOR ITEM 25 080126-0-7919-008-GY	
0028	00001.000	2207431-0001	CARD CARRIER ASSEMBLY 825 RO 1221-1431-001	EA
0030	00001.000	2361102-0052	LABEL,ID,825 RO-COMP PR 1221-2352-000	EA
0031	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00001.000	0239999-9999	COST, SHRINKAGE	EA

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207407-0201	N	825 RO PRINTER -COMPR PR 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	2207405-0202	825 TERMINAL,BASIC-220V,10/16 CPI 1221-4405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207407-0201	N	825 RO PRINTER -COMPR PR 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207437-9701	OPERATORS/SYSTEM MANUAL 825 RO TERMINAL 1221-1437-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0026	00001.000	0996290-0001	CORDSET,POWR-WEST EURO-RT ANGLE PLUG	EA
0028	00001.000	2207431-0001	CARD CARRIER ASSEMBLY 825 RO 1221-1431-001	EA
0030	00001.000	2361102-0053	LABEL,ID,825 RO-COMP PR 1221-2353-000	EA
0031	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00001.000	0239999-9999	COST, SHRINKAGE	EA

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207407-0401	N	825 RO PRINTER -COMPR PR BPO 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0001	00001.000	2207405-0402	825 TERMINAL, BASIC-220V, 10/16 CPI(BPO) 1221-6405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207437-9701	OPERATORS/SYSTEM MANUAL 825 RO TERMINAL 1221-1437-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207407-0401    N         825 RO PRINTER -COMPR PR BPO  220V

ITEM.      QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0026       00001.000   0996695-0001  CABLE,POWER W/O PLUG (INTL.)              EA
                                     080126-107-2-093
0028       00001.000   2207431-0001  CARD CARRIER ASSEMBLY 825 RO              EA
                                     1221-1431-001
0030       00001.000   2361102-0054  LABEL,ID,825 RO-COMP PR BPO               EA
                                     1221-2354-000
0031        REF        2207416-0001  INTERCONNECTION DIAGRAM,820/825           EA

0032       00001.000   2361114-9701  INSTAL INSTR OMNI 800,820/825 RO          EA
                                     1221-1114-000
0041       00001.000   2360001-0001  TAG,BEARING                               EA
                                     7690-2000-000
9999       00001.000   0239999-9999  COST, SHRINKAGE                           EA
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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207407-0801    N         825 RO PRINTER -COMPR PR JPN  115V

ITEM.      QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0001       00001.000   2207405-0802  825 TERMINAL,BASIC-115V,10/16CPI,KATAKAN  EA
                                     1221-0000-000
0004       00001.000   0999746-0001  PLENUM,PWB                                EA
                                     1255-1020-035
0005       00001.000   0999747-0001  INSULATOR, SOUND AIR PLENUM               EA

0006       00001.000   0999748-0001  COVER,TEST                                EA
                                     1255-1021-015
0007       00001.000   0994351-0002  LABEL,CONFIGURATION,820 KSR               EA
                                     1221-1351-000
0008       00001.000   0996241-0001  RIBBON,BLACK,40 YARD-SINGLE               EA
                                     000494-116-2801-163
0009       00001.000   2207437-9701  OPERATORS/SYSTEM MANUAL 825 RO TERMINAL   EA
                                     1221-1437-000
0010       00000.020   0996472-0001  PAPER,CPO-1 PART PREMIUM                  EA
                                     093287-1412RH
0012       00001.000   0999456-9701  MANUAL,INFORMATION REQUEST FORM           EA
                                     1225-9456-000
0016        REF        2362803-0001  PACKING ASSY 820 PRINTER                  EA

0017       00001.000   0999860-9701  MANUAL, RIBBON & PAPER RECOMMENDATIONS    EA
                                     1221-1860-000
0018       00001.000   0999713-0001  WINDOW, TERMINAL                          EA
                                     1255-1008-022
0023       00000.000   0994472-0001  SERVICE KIT,MODEL 810 PRINTER             EA
                                     1221-4472-000
0025       00001.000   0996289-0001  CORD SET,3-PIN PWR-DOMESTIC BLACK         EA
                                     080126-0-7889-008-GY
0026       00000.000   0996289-0002  CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP   EA
                                     080126-0-7919-008-GY
0026A                                ITEM 26 MAY BE USED AS AN
                                     080126-0-7919-008-GY
0026B                                ALTERNATE FOR ITEM 25
                                     080126-0-7919-008-GY
0027        REF        2207416-0001  INTERCONNECTION DIAGRAM,820/825           EA
0028       00001.000   2207431-0001  CARD CARRIER ASSEMBLY 825 RO              EA
                                     1221-1431-001
0030       00001.000   2361102-0056  LABEL,ID,825 RO-COMP PR JPN               EA
                                     1221-2356-000
0032       00001.000   2361114-9701  INSTAL INSTR OMNI 800,820/825 RO          EA
                                     1221-1114-000
0041       00001.000   2360001-0001  TAG,BEARING                               EA
                                     7690-2000-000
```

NOTES:

1. THE WINDOW SHALL BE FREE OF ANY OBVIOUS FLAWS AND SCRACHES WHEN VIEWED FROM VIEWING ANGLE OF 30°. OVERHEAD LIGHTING HAVING 75 TO 100 FOOT CANDLES IS REQUIRED WITH AN INSPECTION TIME PER WINDOW OF 4 SECONDS. WINDOW MUST BE PROPERLY ASSEMBLED IN THE COVER WITH THE BACKGROUND BEING 132 COLUMNS OF PRINTED BARBERPOLE TEXT

2. INSTALL ITEM 28 IN SOCKET U12 ON THE PWB ASSEMBLY

3. MARK APPROPRIATE BLANKS ON CONFIGURATION LABEL PER SALES ORDER. INSTALL ORIGINAL COPY OF THE CONFIGURATION LABEL ON THE TERMINAL COVER PER DRAWING. PLACE THE CARBON COPY. WITH THE SALES ORDER.

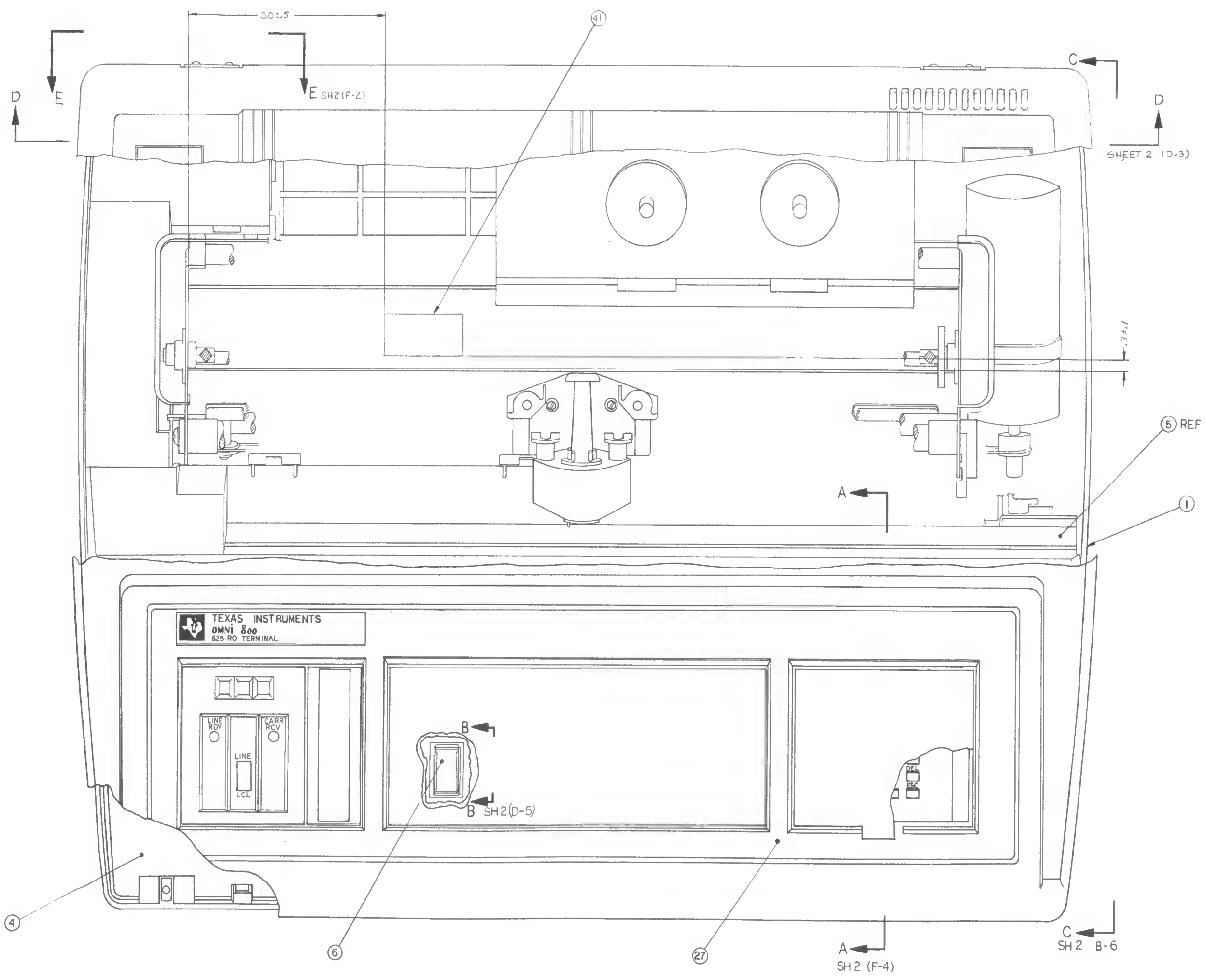
4. ~~INSTALL IDENTIFICATION LABEL PN 2361102, TO LEFT-INSIDE AREA OF COVER AS DESIGNATED ON SHEET 2 OF THIS DRAWING.~~

5. INSTALL THE ONE BIT ROM, PN LU2361105-0001 IN SOCKET XU12 IN RO MACHINES THAT DO NOT HAVE THE DFC (MFG) OPTION. THIS ROM WILL BE REQUIRED ON 825 RO BOARDS THAT CONTAIN:
    A.) ROM ADAPTOR BOARDS
    OR
    B.) ROMS 2207430-0001 & 0002 IN SOCKETS XU9 AND XU10.

   THE ONE BIT ROM WILL NO LONGER BE REQUIRED WHEN NEW ROMS, 2207430-0003 & -0004 BECOME AVAILABLE.

6. A CUSTOMERS "SPECIAL" LABEL MAY BE SUBSTITUTED FOR THE TI IDENTIFICATION LABEL WHEN SO SPECIFIED ON THE SALES ORDER.

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN433850 S. Stevens	8/3/79	
	B	CN 433675 REKHA SETH 1) LM-0101, -0201, -0401 ITEM 9 P N WAS 2207425-9701. 2) LM-0401 ADDED ITEM 30	9/26/79	D. Stevens
	C	CN444016 (E) S Dodson (1) ON ALL LM'S ITEM 8 WAS 996704-1	12/14/79	
	D	CN455628(E) S Dodson (1)-101, -201 & -401 ADDED ITEM 29 & 31 (2)-401 ITEM 25 WAS 996348-1	2/13/80	S Dodson
	E	CN 460060 (D) K Nguyen (1) REVISED PER EXTENSIVE ENG. CHANGES.	4/19/80	S Dodson
	F	CN 452313 (E) J. HIGGINBOTHAM (1) ON ALL DASH NO.S ADDED ITEM 33	5/20/80	S Dodson
	G	CN452619 (D) S Dodson (1) F LM'S ITEM 16 WAS 2206802-1	12-1-80	S Dodson
	H	CN469186 (B) M Kuehn (1) ADDED VIEW E-E (2) ON -0101 LM, ADDED ITEM 40	2/10/81	
	J	CN465732 (D)	(1) ADDED NOTE 6	3/6/81	
	K	CN 477840 (D) O Howard (1) QNTY OF IT 23 WAS 1.0, ADDED IT. 41	10-14-81	M Howard
	L	CN486812 (C) D. Howard (1) DEL IT 14 ON ALL LM'S	12-9-81	S Dodson
	M	CN507023 (D) PRUNYN (1) DEL ITEM 40 ON -0101 LM (2) SH2 VIEW E-E DEL DIMS 1.25±.25 AND .40±.10	2-2-83	
	N	CN497288 (C) PRUNYN (1) ON -0201 LM ITEM 25 P/N WAS 0996290-0001 (2) ON -0401 LM ITEM 25 P/N WAS 0996695-0001	4-26-83	



PART NUMBER	DESCRIPTION
2207408-0801	825 RO PRINTER-PACKAGE 115V,
2207408-0401	825 RO PACKAGE, 220V, (BPO) 10/16 CPI
2207408-0201	825 RO PACKAGE, 220V, 10/16 CPI FULL ASCII
2207408-0101	825 RO PACKAGE, 220V, 10/16 CPI FULL ASCII

REV STATUS OF SHEETS					
REV	N	M			
SH	1	2			

2	1	ITEM NO	TEXAS INSTRUMENTS GOV OR INDUSTRY	
QTY REQD			PART OR IDENTIFYING NO	

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING
DRILLED HOLE TOLERANCES
.013 THRU .125 +.004 -.001
.126 THRU .250 +.005 -.001
.251 THRU .500 +.006 -.001
.501 THRU .750 +.006 -.001
INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL STD-100

NEXT ASSY	USED ON
2207449	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
MATERIAL

DR S. Stevens DATE 6-27-79
CHK Dave Stevens 7/29/79
ENGR 7/3/79
APPD Dennis R 7/30/79
CONTR NO 5-3-79
DESIGN ACTIVITY REL 3/3/79

TEXAS INSTRUMENTS
DALLAS TEXAS

825 RO PACKAGE

E 96214 2207408

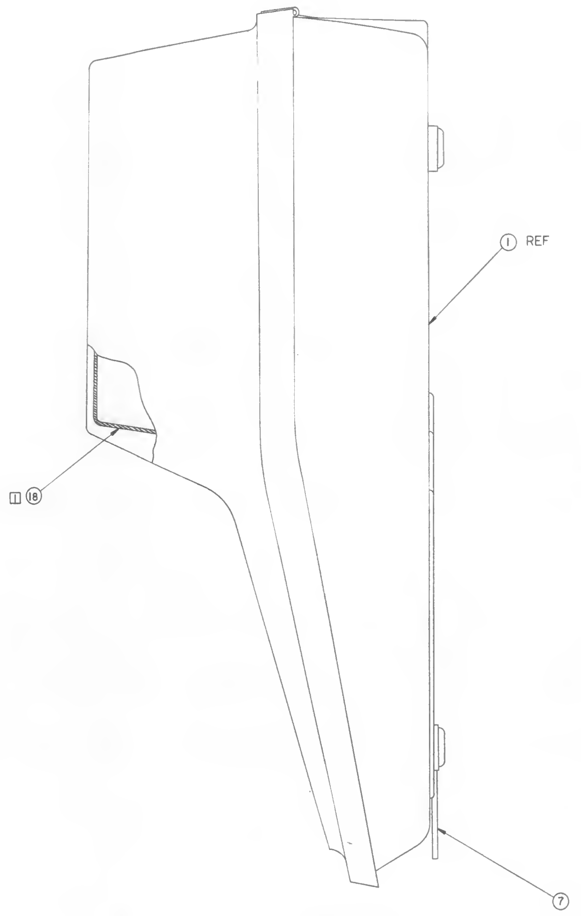
SCALE NONE 1 OF 2

LM

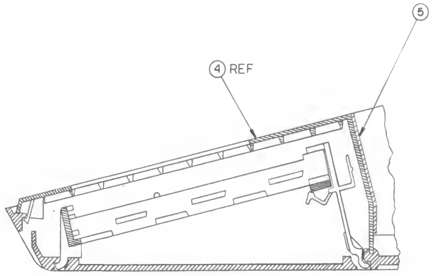
300

E 2207408

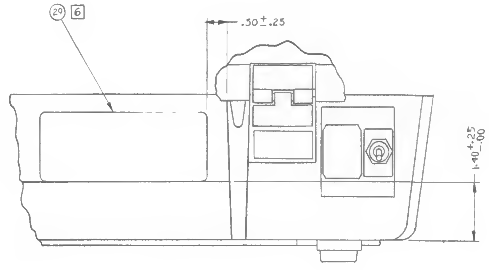
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED



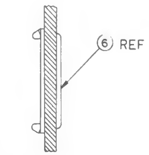
VIEW C-C
SH I (A-3)



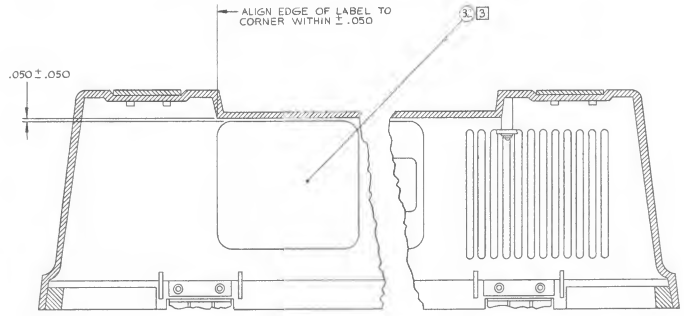
SECTION A-A
SH I (A-4)
ROTATED 90° CLOCKWISE



VIEW E-E
SH I (G-7)
ROTATED 180°



SECTION B-B
SH I (B-6)
SCALE: 2/1



SECTION D-D
SHEET I (F-8)

E 2207408

-2	1	ITEM NO	TEXAS INSTRUMENTS	GOVT OR INDUSTRY	NOMENCLATURE OR DESCRIPTION
QTY REQD			PART OR IDENTIFYING NO		

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING

DRILLED HOLE TOLERANCES			
.013 THRU .125	+.004 −.001	.251 THRU .500	+.006 −.001
.126 THRU .250	+.005 −.001	.501 THRU .750	+.008 −.001

INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100

NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02

MATERIAL

DR S Stevano DATE 6-27-79
CHK
ENGR
APPD
CONTR NO.
DESIGN ACTIVITY RELEASE

TEXAS INSTRUMENTS
INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

TITLE

SIZE	CODE IDENT NO	DRAWING NO.
E	96214	2207408

SCALE NONE M SHEET 2

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
2207408-0101	M	825 RO PRINTER -PACKAGE 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	2207405-0102	825 TERMINAL,BASIC-115V,10/16 CPI 1221-2405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2207431-0001	CARD CARRIER ASSEMBLY 825 RO 1221-1431-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207437-9701	OPERATORS/SYSTEM MANUAL 825 RO TERMINAL 1221-1437-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED AS AN 080126-0-7919-008-GY	
0026B			ALTERNATE FOR ITEM 25 080126-0-7919-008-GY	
0027	00001.000	2207417-0001	CONTROL PANEL ASSY-FULL ASCII 825RO 1221-1417-001	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	00001.000	2361102-0057	LABEL,ID,825 RO-PACKAGE 1221-2357-000	EA
0031	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0033	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION.............................
2207408-0201	M	825 RO PRINTER -PACKAGE 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.............................	UM
0001	00001.000	2207405-0202	825 TERMINAL,BASIC-220V,10/16 CPI 1221-4405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2207431-0001	CARD CARRIER ASSEMBLY 825 RO 1221-1431-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA
0009	00001.000	2207437-9701	OPERATORS/SYSTEM MANUAL 825 RO TERMINAL 1221-1437-000	EA
0010	00000.020	0996472-0001	PAPER,CPO-1 PART PREMIUM 093287-1412RH	EA
0012	00001.000	0999456-9701	MANUAL,INFORMATION REQUEST FORM 1225-9456-000	EA
0016	REF	2362803-0001	PACKING ASSY 820 PRINTER	EA
0017	00001.000	0999860-9701	MANUAL, RIBBON & PAPER RECOMMENDATIONS 1221-1860-000	EA
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996290-0001	CORDSET,POWR-WEST EURO-RT ANGLE PLUG	EA
0027	00001.000	2207417-0001	CONTROL PANEL ASSY-FULL ASCII 825RO 1221-1417-001	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	00001.000	2361102-0058	LABEL,ID,825 RO-PACKAGE 1221-2358-000	EA
0031	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0033	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

02/05/83

PART NUMBER	REV	DESCRIPTION.............................
2207408-0401	M	825 RO PRINTER -PACKAGE BPO 220V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.............................	UM
0001	00001.000	2207405-0402	825 TERMINAL, BASIC-220V, 10/16 CPI(BPO) 1221-6405-000	EA
0004	00001.000	0999746-0001	PLENUM,PWB 1255-1020-035	EA
0005	00001.000	0999747-0001	INSULATOR, SOUND AIR PLENUM	EA
0006	00001.000	0999748-0001	COVER,TEST 1255-1021-015	EA
0007	00001.000	2207431-0001	CARD CARRIER ASSEMBLY 825 RO 1221-1431-001	EA
0008	00001.000	0996241-0001	RIBBON,BLACK,40 YARD-SINGLE 000494-116-2801-163	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207408-0401    M         825 RO PRINTER -PACKAGE  BPO  220V

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION............................ UM

0009      00001.000   2207437-9701   OPERATORS/SYSTEM MANUAL 825 RO TERMINAL    EA
                                     1221-1437-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                   EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM            EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                   EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS     EA
                                     1221-1860-000
0018      00001.000   0999713-0001   WINDOW, TERMINAL                           EA
                                     1255-1008-022
0023      00000.000   0994472-0001   SERVICE KIT,MODEL 810 PRINTER              EA
                                     1221-4472-000
0025      00001.000   0996695-0001   CABLE,POWER W/O PLUG (INTL.)               EA
                                     080126-107-2-093
0027      00001.000   2207417-0001   CONTROL PANEL ASSY-FULL ASCII 825RO        EA
                                     1221-1417-001
0028      00001.000   0999836-0001   DEVICE/FORMS CONTROL OPTION                EA
                                     1221-1836-001
0029      00001.000   2361102-0059   LABEL,ID,825 RO-PACKAGE BPO                EA
                                     1221-2359-000
0030      00001.000   2207441-0002   CHAR SET,ENGLISH ASCII,825 RO              EA
                                     1221-2441-000
0031       REF        2207416-0001   INTERCONNECTION DIAGRAM,820/825            EA

0032      00001.000   0994351-0[illegible]   LABEL,CONFIGURATION,820 KSR                EA
                                     1221-1351-000
0033      00001.000   2361114-9701   INSTAL INSTR OMNI 800,820/825 RO           EA
                                     1221-1114-000
0041      00001.000   2360001-0001   TAG,BEARING                                EA
                                     7690-2000-000
9999      00000.000   0239999-9999   COST, SHRINKAGE                            EA
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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207408-0801    M         825 RO PRINTER -PACKAGE  JPN  115V

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION............................ UM

0001      00001.000   2207405-0802   825 TERMINAL,BASIC-115V,10/16CPI,KATAKAN   EA
                                     1221-0000-000
0004      00001.000   0999746-0001   PLENUM,PWB                                 EA
                                     1255-1020-035
0005      00001.000   0999747-0001   INSULATOR, SOUND AIR PLENUM                EA

0006      00001.000   0999748-0001   COVER,TEST                                 EA
                                     1255-1021-015
0007      00001.000   2207431-0001   CARD CARRIER ASSEMBLY 825 RO               EA
                                     1221-1431-001
0008      00001.000   0996241-0001   RIBBON,BLACK,40 YARD-SINGLE                EA
                                     000494-116-2801-163
0009      00001.000   2207437-9701   OPERATORS/SYSTEM MANUAL 825 RO TERMINAL    EA
                                     1221-1437-000
0010      00000.020   0996472-0001   PAPER,CPO-1 PART PREMIUM                   EA
                                     093287-1412RH
0012      00001.000   0999456-9701   MANUAL,INFORMATION REQUEST FORM            EA
                                     1225-9456-000
0016       REF        2362803-0001   PACKING ASSY 820 PRINTER                   EA

0017      00001.000   0999860-9701   MANUAL, RIBBON & PAPER RECOMMENDATIONS     EA
                                     1221-1860-000
```

LIST OF MATERIALS

02/05/83

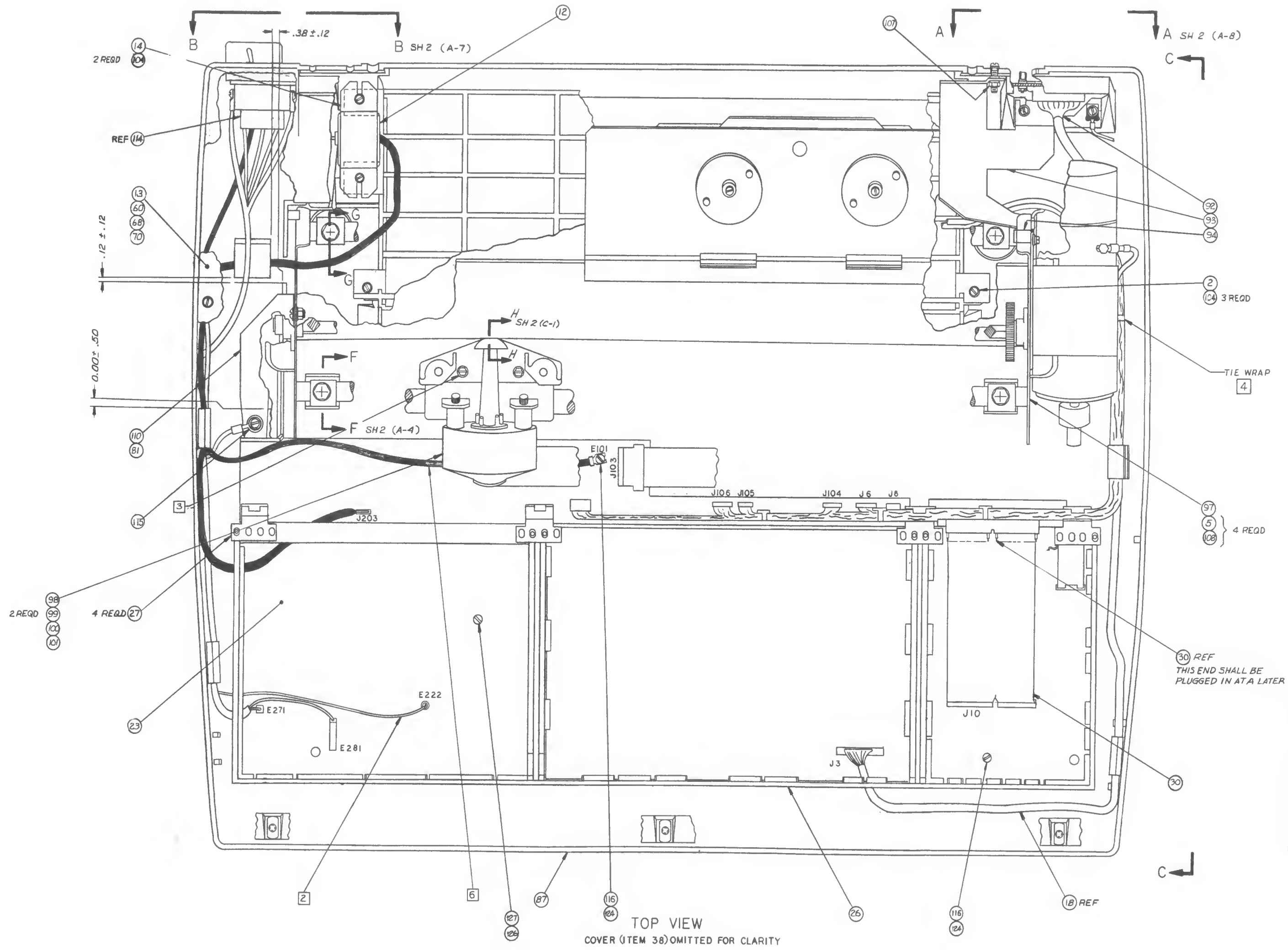
PART NUMBER REV DESCRIPTION............................
2207408-0801 M 825 RO PRINTER -PACKAGE JPN 115V

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0018	00001.000	0999713-0001	WINDOW, TERMINAL 1255-1008-022	EA
0023	00000.000	0994472-0001	SERVICE KIT,MODEL 810 PRINTER 1221-4472-000	EA
0025	00001.000	0996289-0001	CORD SET,3-PIN PWR-DOMESTIC BLACK 080126-0-7889-008-GY	EA
0026	00000.000	0996289-0002	CORD SET,3-PIN PWR-DOMESTIC GRAY W/CLIP 080126-0-7919-008-GY	EA
0026A			ITEM 26 MAY BE USED AS AN 080126-0-7919-008-GY	
0026B			ALTERNATE FOR ITEM 25 080126-0-7919-008-GY	
0027	00001.000	2207417-0003	CONTROL PNL ASSY,825 RO,KATAKANA 1221-0000-000	EA
0028	00001.000	0999836-0001	DEVICE/FORMS CONTROL OPTION 1221-1836-001	EA
0029	00001.000	2361102-0061	LABEL,ID,825 RO-PACKAGE JPN 1221-2361-000	EA
0031	REF	2207416-0001	INTERCONNECTION DIAGRAM,820/825	EA
0032	00001.000	0994351-0002	LABEL,CONFIGURATION,820 KSR 1221-1351-000	EA
0033	00001.000	2361114-9701	INSTAL INSTR OMNI 800,820/825 RO 1221-1114-000	EA
0041	00001.000	2360001-0001	TAG,BEARING 7690-2000-000	EA
9999	00001.000	0239999-9999	COST, SHRINKAGE	EA

NOTES: UNLESS OTHERWISE SPECIFIED

1. DISCARD ON/OFF PLATE SUPPLIED WITH ITEM 114 AND USE ITEM 85
2. FOR -0401 AND -0402 ASSEMBLIES SOLDER GROUND WIRE OF ITEM 114 TO PCB PER PROCESS 1 AND REF DESIGNATOR INDICATED
3. NOSEGUIDE SHALL BE ADJUSTED PER DIMENSION SHOWN IN SECTION H-H AND TIGHTEN MOUNTING SCREW TO 10±1 IN LBS.
4. IF THIS TIE WRAP HAS TO BE REMOVED AFTER THE MECHANISM HAS BEEN TO INSTALLED- IT IS NOT NECESSARY TO REPLACE IT
5. ITEM 23 MAYBE USED ONLY WITH ITEM 87 ITEM 121 MAY BE USED ONLY WITH ITEM 117
6. "ON ALL ASSEMBLIES EXCEPT -401 AND -402 FASTEN GROUND WIRE TO MOUNTING HOLE E101 ON PCB"
7. LOCATE WITHIN .5 INCHES OF IDENTIFICATION LABEL

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	CN455624(E) Dobson (1) ALL DASH NO'S DELETED ITEM 51	11-8-79	
	B	CN460009(D) Dobson (1)ADDED -0801 AND -0802	1-17-80	
	C	CN 460081(B) J.E. Murany (1) REVISED VIEW A-A SH 2 (2) ALL LM'S: ADDED ITEMS 88 & 89; ITEM 56 QTY WAS 2	4-2-80	Dodson
	D	CN 458444 (C) J HIGGINBOTHAM (1) ON -101, -102 ADDED ITEM 90 (2) ON SHEET 2, VIEW B-B, ADDED ITEM 90 AND LOCATING DIMS	5/26/80	
	E	CN469172(E) J Higginbotham (1) ON ALL DASH NO.S ITEM 63 P/N WAS 2210071-0024; ADDED ITEM 91. (NO MICROFILM AVAILABLE)	7-21-80	Dodson
	F	CN 468961(D) J Higginbotham (1) ON ALL DASH NO.S, DELETED ITEMS 17, 18, 19, 20, ADDED ITEM 92 (2) SH 2, ZN G-3 DELETED VIEW E. (NO MICROFILM AVAILABLE)	7-21-80	Dodson
	G	CN457903(C) J Higginbotham (1) ON ALL DASH NO.S ADDED ITEMS 93, 94, 95, 96; DELETED ITEM 54; ITEM 68 QTY. WAS 18. (NO MICROFILM AVAILABLE)	7-21-80	Dodson
	H	CN457916(D) J Higginbotham (1) REV. PER EXT. ENG CHANGES.	7-21-80	Dodson
	J	CN457943(D) J Dodson (1) ALL LMS: DELETED ITEM 88 AND 89	8-7-80	
	K	CN457219 (D) N. Hodde (1) REV PER EXT. ENG CHANGES	10-8-80	Dodson
	L	CN477281(C) M Kuhn (1) ON -0101 AND -0102 LM'S, ADDED ITEMS 105 AND 106; DELETED ITEM 90	3/16/81	
	M	CN 465647 (D) M. DURHAM (1) ITEM 12 WAS 0999819-0001	5-12-81	
	N	CN472362 (D) G. Smith (1) ON ALL DASH NOS, DELETED ITEMS 70, 68, 61, 95, 96, 63, 57, 65, 82, 83, 84, 60, 56, 66; ADDED ITEMS 104, 107, 108, 109, 110, 111, 112	7-16-81	
	P	CN479139(D) M Kuhn (1) REVISED PER EXTENSIVE ENG. CHANGES	1-5-82	
	R	CN477587(D) M Kuhn (1) REVISED PER EXTENSIVE ENG CHANGES	1-5-82	
	T	CN477550(D) M Kuhn (1) ON ALL LM'S ADDED ITEMS 119 AND 120 (2) ON ALL LM'S DELETED ITEMS 34 AND 35	1-5-82	
	U	CN477551 (D) 1) REV PER EXT ENG CHNGS. 2) UPDATED LM 3) UPDATED REV SH BLK	1-29-82	
	V	CN477978(D) D HOWARD (1) ALL LMS, REV IT 98 PN FROM 2207420-0001 (2) ALL LMS, ADDED IT 122	4-1-82	
	W	CN491946 (C) J.KLEPAC (1) ADDED ITEM 123 AN 124 TO LM (2) ADDED NOTE 6 (3) ADDED GROUND WIRE TO E101	7-21-82	
	Y	CN491995 (C) D HOWARD (1) ITEM 115 QTY WAS 2 (2) IT 116 PN WAS 2210064-5 (3) ADDED IT 124, 126, AND 127 (4) DEL 124A, 124B, AND 123 (5) IT 116 AND 124 CALLOUTS ZB-5, 3 (6) D-8 DEL "2 RQD" (7) B-6 ADDED 127, 126 IT CALLOUT (8) UPDATED LM	4-28-83	
	AA	CN507010 (D) D Howard (1) IT 105 DASH NO FROM -1 TO -2 (2) ADDED IT 128 TO DWG SH 2, VIEW B-B AND ALSO TO LM (3) ADDED NOTE 7	4-28-83	



TOP VIEW
COVER (ITEM 38) OMITTED FOR CLARITY

PART NUMBER	DESCRIPTION
2207405-0802	825 TERMINAL, BASIC -115V, 10/16 CPI KATAKANA
2207405-0801	825 TERMINAL, BASIC -115V, 10CPI, KATAKANA
2207405-0402	825 TERMINAL, BASIC 220V. 10/16 CPI (BPO)
2207405-0401	825 TERMINAL, BASIC 220V, 10CPI (BPO)
2207405-0202	825 TERMINAL, BASIC-220V, 10/16 CPI
2207405-0201	825 TERMINAL, BASIC- 220V, 10 CPI
2207405-0102	825 TERMINAL, BASIC -115V, 10/16 CPI
2207405-0101	825 TERMINAL, BASIC - 115 V, 10 CPI

-2	-1	ITEM NO	TEXAS INSTRUMENTS	GOVT OR INDUSTRY	NOMENCLATURE OR DESCRIPTION
QTY REQD			PART OR IDENTIFYING NO		

PARTS LIST

UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING
DRILLED HOLE TOLERANCES
.013 THRU .125 +.004 −.001
.126 THRU .250 +.005 −.001
.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001
INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100

NEXT ASSY	USED ON
2207415	8740
2207409	8740
2207408	8740
2207407	8740
2207406	8740
2207400	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
MATERIAL:

DR S. Stevens DATE 7-6-79
CHK Dave Stevens 7/12/79
ENGR Charlie Haynes 7-30-79
APPD Dennis R Gutsche 7/24/79
CONTR NO
DESIGN ACTIVITY RELEASE 7/30/79

TEXAS INSTRUMENTS INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS

TITLE
825 TERMINAL, BASIC

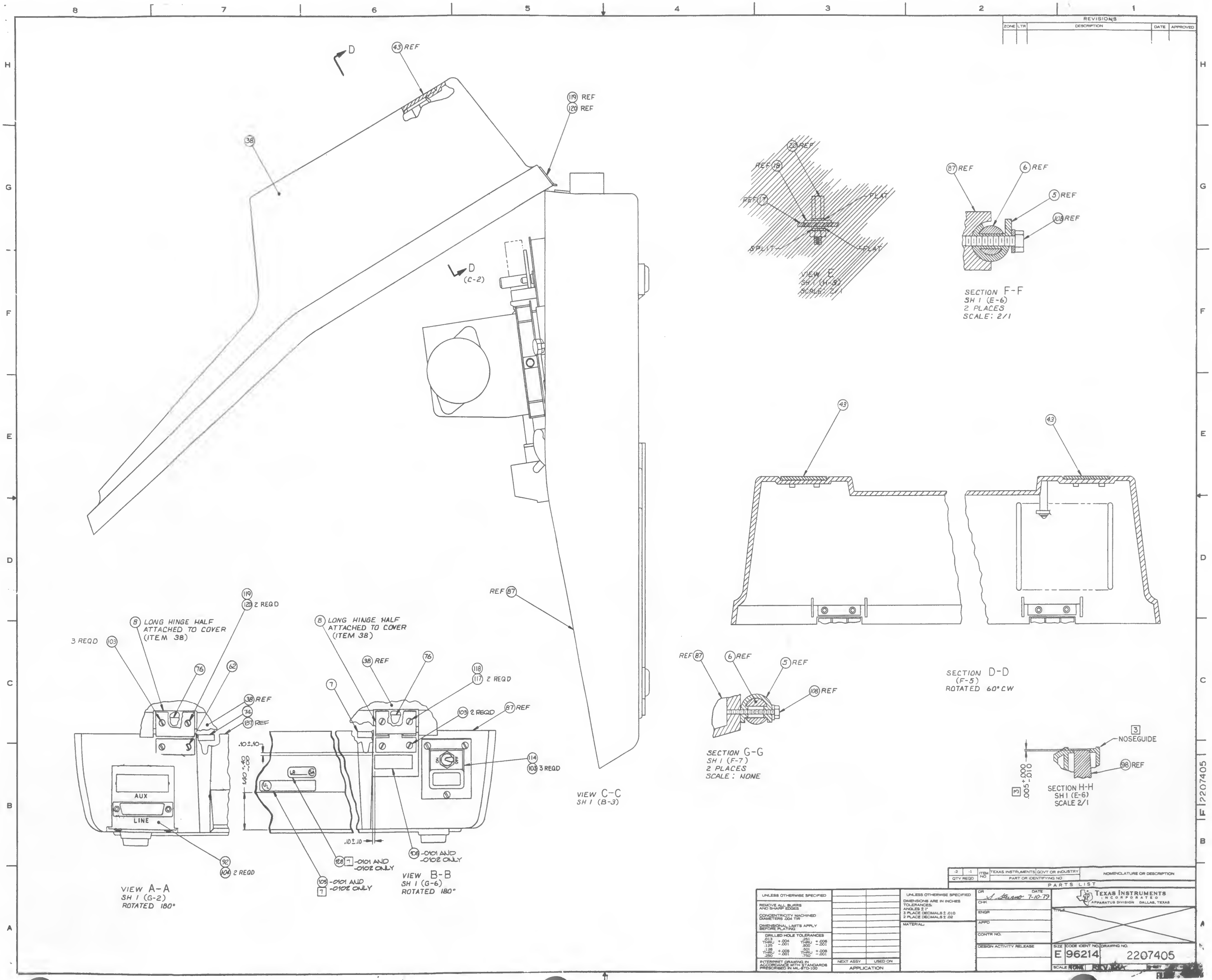
SIZE E CODE IDENT NO. 96214 DRAWING NO. 2207405 FILMED
SCALE NONE SHEET 1 OF 2

LM

E 2207405

REV STATUS OF SHEETS	REV	AA	AA
	SH	1	2

1	SLDR	127-02100		2
SEQ	IDENT SPEC NO.		ADDITIONAL	NOTES
85	PROCESS		CLASSIFICATION	



REVISIONS
ZONE
LTR
DESCRIPTION
DATE
APPROVED
D
43 REF
119 REF
120 REF
38
D (C-2)
20 REF
REF 18
REF 17
FLAT
SPLIT
FLAT
VIEW E
SH 1 (H-3)
SCALE: 2/1
87 REF
6 REF
5 REF
108 REF
SECTION F-F
SH 1 (E-6)
2 PLACES
SCALE: 2/1
43
43
SECTION D-D
(F-5)
ROTATED 60° CW
REF 87
REF 87
6 REF
5 REF
108 REF
SECTION G-G
SH 1 (F-7)
2 PLACES
SCALE: NONE
3
NOSEGUIDE
98 REF
.005 +.000 -.010
3
SECTION H-H
SH 1 (E-6)
SCALE 2/1
VIEW C-C
SH 1 (B-3)
119
120 2 REQD
8 LONG HINGE HALF ATTACHED TO COVER (ITEM 38)
3 REQD 103
76
62
38 REF
74
87 REF
AUX
LINE
92
104 2 REQD
VIEW A-A
SH 1 (G-2)
ROTATED 180°
.10±.10
1.40 +.30 -.00
8 LONG HINGE HALF ATTACHED TO COVER (ITEM 38)
7
38 REF
76
118
117 2 REQD
105 2 REQD
87 REF
114
103 3 REQD
.10±.10
128 7 -0101 AND -0102 ONLY
105 7 -0101 AND -0102 ONLY
106 -0101 AND -0102 ONLY
VIEW B-B
SH 1 (G-6)
ROTATED 180°
F 2207405
-2
-1
QTY REQD
ITEM NO
TEXAS INSTRUMENTS
GOVT OR INDUSTRY
PART OR IDENTIFYING NO
NOMENCLATURE OR DESCRIPTION
PARTS LIST
UNLESS OTHERWISE SPECIFIED
REMOVE ALL BURRS AND SHARP EDGES
CONCENTRICITY MACHINED DIAMETERS .004 TIR
DIMENSIONAL LIMITS APPLY BEFORE PLATING
DRILLED HOLE TOLERANCES
.013 THRU .125 +.004 -.001
.251 THRU .500 +.006 -.001
.126 THRU .250 +.005 -.001
.501 THRU .750 +.008 -.001
INTERPRET DRAWING IN ACCORDANCE WITH STANDARDS PRESCRIBED IN MIL-STD-100
NEXT ASSY
USED ON
APPLICATION
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
ANGLES ± 1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
MATERIAL:
DR S. Sterno
DATE 7-10-79
CHK
ENGR
APPD
CONTR NO.
DESIGN ACTIVITY RELEASE
TEXAS INSTRUMENTS INCORPORATED
APPARATUS DIVISION DALLAS, TEXAS
TITLE
SIZE E
CODE IDENT NO. 96214
DRAWING NO. 2207405
SCALE NONE
SHEET

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
2207405-0101    AA        825 TERMINAL,BASIC-115V,10 CPI

ITEM.      QUANTITY.    COMPONENT..  DESCRIPTION.......................... UM

0002       00001.000    0999739-0001   COVER, PAPER CHUTE                       EA
                                       1255-1017-027
0005       00004.000    0999885-0001   SHOCK MOUNT                              EA
                                       1255-1043-013
0006       00000.000    2207421-0001   MECHANISM,10 CPI                         EA
                                       1221-1421-000
0006A                                  MAY BE USED AS AN ALTERNATE
                                       1221-1421-000
0006B                                  FOR ITEM 97,98,99,100 & 101
                                       1221-1421-000
0007       00001.000    0999740-0001   NUTPLATE,HINGE-LEFT TERMINAL BASE        EA
                                       1684-1740-015
0008       00002.000    0999741-0001   HINGE, TERMINAL COVER                    EA

0012       00001.000    0999819-0002   FAN ASSY -10,000 HR                      EA
                                       1221-0819-031
0013       00001.000    0999720-0001   PLENUM, FAN                              EA
                                       1255-1010-021
0014       00001.000    0983863-0001   BRACKET,FAN MOTOR,743/745/763/765/820    EA
                                       1683-3863-033
0023       00001.000    2208265-0105   TERMINAL ELECTRONICS, 825 - 115 VAC      EA
                                       1221-0043-030
0026       00001.000    0999744-0001   CARD FRAME, KEYBOARD/OPTION              EA
                                       1255-1018-031
0027       00004.000    0999745-0001   KEEPER, CARD FRAME                       EA
                                       1255-1019-017
0030       00001.000    0996774-0002   CABLE,ELEC,8.50LG FLAT,FLEXIBLE          EA
                                       000779-88769-1
0038       00001.000    0999918-0001   COVER ASSY                               EA
                                       1221-1918-001
0043       00002.000    0999762-0001   COVER, FALSE-ASR TERMINAL                EA
                                       1255-1027-016
0062       00001.000    2210084-0017   SEMS, PAN HEAD 6-32X5/8 EXT TOOTH        EA
                                       SEE TI- DRAWING
0074       00001.000    0999792-0001   NUTPLATE,HINGE-RH TERMINAL BASE          EA
                                       1684-1792-013
0076       00002.000    0999793-0001   NUTPLATE,HINGE- TERMINAL COVER           EA
                                       1684-1793-027
0081       00001.000    0999927-0001   GROUND STRAP MECHANISM                   EA
                                       1684-1927-019
0087       00001.000    0999737-0002   BASE ASSY,WITHOUT GROUND PLANE           EA
                                       1221-2737-001
0092       00001.000    2361118-0001   PANEL ASSEMBLY,EIA CABLE                 EA
                                       1221-1118-038
0093       00001.000    2361115-0001   GROUND STRAP,PAPER BASKET & EIA PANEL    EA
                                       1684-0115-009
0094       00001.000    2211457-0001   CLIP,U-TYPE,SPRING STEEL                 EA
                                       SEE TI- DRAWING
0097       00001.000    2206573-0003   MECHANISM,10 CPI W/O P/H                 EA
                                       1221-3573-001
0098       00001.000    2217374-0001   PRINTHEAD ASSY, UNIVERSAL-82X            EA
                                       1221-1374-001
0099       00002.000    0994199-0001   NUT,PRINTHEAD                            EA

0100       00001.000    0983903-0002   CLIP,CABLE                               EA
                                       1680-1903-026
0101       00001.000    0999791-0001   CABLE ASSY,PRINTHEAD                     EA
                                       1221-1791-056
0103       00006.000    2210084-0015   SEMS,PAN HEAD 6-32X7/16 EXT TOOTH        EA
                                       SEE TI- DRAWING
0104       00007.000    2211692-0005   SEMS,4-40X.437,PAN HEAD,CONE WASHER      EA
                                       SEE TI- DRAWING
0105       00001.000    0937286-0002   LABEL,UL                                 EA
                                       1225-2286-000
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207405-0101	AA	825 TERMINAL,BASIC-115V,10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0106	00001.000	2211617-0001	LABEL .437"H"X1.496"W",NOTE OF COMPLIANC 1224-1617-000	EA
0107	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0108	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0109	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0110	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0111	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0112	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0113	00000.000	2217354-0001	FILTER, AC LINE	EA
0114	00001.000	2361131-0001	POWER CABLE ASSY - DOMESTIC 1221-1131-012	EA
0114A			MAY BE USED AS AN ALTERNATE 1221-1131-012	
0114B			FOR ITEM 113 1221-1131-012	
0115	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0116	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0117	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0117A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0117B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0101	TERMINAL ELECTRONICS W/GND PLANE-115V 1221-1974-001	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-1974-001	
0121B			FOR ITEM 23 1221-1974-001	
0122	00000.000	2207420-0001	PRINTHEAD ASSY, 30 VOLT 1221-1420-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1420-000	
0122B			*FOR ITEM 98 1221-1420-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
0128	00001.000	0941401-0003	LABEL, LR NUMBER, CSA (46354)	EA
9999	00003.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207405-0102	AA	825 TERMINAL,BASIC-115V,10/16 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2207421-0002	MECHANISM,10/16 CPI 1221-2421-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-2421-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-2421-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0105	TERMINAL ELECTRONICS, 825 - 115 VAC 1221-0043-030	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-00[illegible]	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0004	MECHANISM,10 & 16.5 CPI W/O P/H 1221-4573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0104	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0105	00001.000	0937286-0002	LABEL,UL 1225-2286-000	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207405-0102    AA        825 TERMINAL,BASIC-115V,10/16 CPI

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0106      00001.000   2211617-0001   LABEL .437"H"X1.496"W",NOTE OF COMPLIANC  EA
                                     1224-1617-000
0107      00001.000   2210006-0002   ASSY, HEX NUT, LOCKWASHERS                EA
                                     092550-SEE DRAWING
0108      00004.000   2211690-0026   SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER      EA
                                     SEE TI- DRAWING
0109      00001.000   2210006-0003   ASSY,HEX NUT,LOCKWASHERS, 8-32            EA
                                     092550-SEE DRAWING
0110      00001.000   0972684-0018   SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD   EA

0111      00002.000   2211690-0005   SEMS,4-40 X.437,PAN HEAD,FLAT WASHER      EA
                                     SEE TI- DRAWING
0112      00002.000   2210006-0001   ASSY,HEX NUT,LOCKWASHERS, 4-40            EA
                                     092550-SEE DRAWING
0113      00000.000   2217354-0001   FILTER, AC LINE                           EA

0114      00001.000   2361131-0001   POWER CABLE ASSY - DOMESTIC               EA
                                     1221-1131-012
0114A                                MAY BE USED AS AN ALTERNATE
                                     1221-1131-012
0114B                                FOR ITEM 113
                                     1221-1131-012
0115      00001.000   2210084-0024   SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC      EA
                                     SEE TI- DRAWING
0116      00002.000   0972988-0015   SCREW 4-40 X .375 PAN HEAD CRES           EA

0117      00000.000   0999737-0001   BASE ASSEMBLY, 820                        EA
                                     1221-9737-000
0117A                                MAY BE USED AS AN ALTERNATE
                                     1221-9737-000
0117B                                FOR ITEM 87
                                     1221-9737-000
0119      00002.000   2361126-0001   HINGE, STOP - 820 COVER                   EA
                                     1684-0126-009
0120      00004.000   2210084-0016   SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W.  EA
                                     SEE TI- DRAWING
0121      00000.000   0999974-0101   TERMINAL ELECTRONICS W/GND PLANE-115V     EA
                                     1221-1974-001
0121A                                MAY BE USED AS AN ALTERNATE
                                     1221-1974-001
0121B                                FOR ITEM 23
                                     1221-1974-001
0122      00000.000   2207420-0001   PRINTHEAD ASSY, 30 VOLT                   EA
                                     1221-1420-000
0122A                                *MAY BE USED AS AN ALTERNAT
                                     1221-1420-000
0122B                                *FOR ITEM 98
                                     1221-1420-000
0124      00002.000   0411101-0057   LOCKWASHER # 4  EXTERNAL TOOTH CRES       EA
                                     QPL   - MS35335-57
0126      00001.000   0411101-0059   LOCKWASHER # 8  EXTERNAL TOOTH CRES       EA
                                     QPL   - MS35335-59
0127      00001.000   0972988-0043   SCREW 8-32 X .375 PAN HEAD CRES           EA

0128      00001.000   0941401-0003   LABEL, LR NUMBER, CSA (46354)             EA

9999      00003.000   0239999-9999   COST, SHRINKAGE                           EA
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
2207405-0201	AA	825 TERMINAL,BASIC-220V,10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..........................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2207421-0001	MECHANISM,10 CPI 1221-1421-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-1421-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-1421-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0205	TERMINAL ELECTRONICS, 820 - 220 VAC 1221-0042-000	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0003	MECHANISM,10 CPI W/O P/H 1221-3573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0104	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207405-0201	AA	825 TERMINAL,BASIC-220V,10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0107	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0108	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0109	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0110	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0111	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0112	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0113	00000.000	2217354-0001	FILTER, AC LINE	EA
0114	00001.000	2361131-0001	POWER CABLE ASSY - DOMESTIC 1221-1131-012	EA
0114A			MAY BE USED AS AN ALTERNATE 1221-1131-012	
0114B			FOR ITEM 113 1221-1131-012	
0115	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0116	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0117	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0117A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0117B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0201	TERMINAL ELECTRONICS W/GND PLANE-230V 1221-2974-000	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-2974-000	
0121B			FOR ITEM 23 1221-2974-000	
0122	00000.000	2207420-0001	PRINTHEAD ASSY, 30 VOLT 1221-1420-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1420-000	
0122B			*FOR ITEM 98 1221-1420-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
9999	00003.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207405-0202	AA	825 TERMINAL,BASIC-220V,10/16 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2207421-0002	MECHANISM,10/16 CPI 1221-2421-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-2421-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-2421-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0205	TERMINAL ELECTRONICS, 820 - 220 VAC 1221-0042-000	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0004	MECHANISM,10 & 16.5 CPI W/O P/H 1221-4573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0104	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207405-0202    AA        825 TERMINAL,BASIC-22CV,10/16 CPI

ITEM.     QUANTITY.     COMPONENT..   DESCRIPTION............................. UM

0108      00004.000    2211690-0026    SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER       EA
                                       SEE TI- DRAWING
0109      00001.000    2210006-0003    ASSY,HEX NUT,LOCKWASHERS, 8-32             EA
                                       092550-SEE DRAWING
0110      00001.000    0972684-0018    SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD    EA

0111      00002.000    2211690-0005    SEMS,4-40 X.437,PAN HEAD,FLAT WASHER       EA
                                       SEE TI- DRAWING
0112      00002.000    2210006-0001    ASSY,HEX NUT,LOCKWASHERS, 4-40             EA
                                       092550-SEE DRAWING
0113      00000.000    2217354-0001    FILTER, AC LINE                            EA

0114      00001.000    2361131-0001    POWER CABLE ASSY - DOMESTIC                EA
                                       1221-1131-012
0114A                                  MAY BE USED AS AN ALTERNATE
                                       1221-1131-012
0114B                                  FOR ITEM 113
                                       1221-1131-012
0115      00001.000    2210084-0024    SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC       EA
                                       SEE TI- DRAWING
0116      00002.000    0972988-0015    SCREW 4-40 X .375 PAN HEAD CRES            EA

0117      00000.000    0999737-0001    BASE ASSEMBLY, 820                         EA
                                       1221-9737-000
0117A                                  MAY BE USED AS AN ALTERNATE
                                       1221-9737-000
0117B                                  FOR ITEM 87
                                       1221-9737-000
0119      00002.000    2361126-0001    HINGE, STOP - 820 COVER                    EA
                                       1684-0126-009
0120      00004.000    2210084-0016    SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W.   EA
                                       SEE TI- DRAWING
0121      00000.000    0999974-0201    TERMINAL ELECTRONICS W/GND PLANE-230V      EA
                                       1221-2974-000
0121A                                  MAY BE USED AS AN ALTERNATE
                                       1221-2974-000
0121B                                  FOR ITEM 23
                                       1221-2974-000
0122      00000.000    2207420-0001    PRINTHEAD ASSY, 30 VOLT                    EA
                                       1221-1420-000
0122A                                  *MAY BE USED AS AN ALTERNAT
                                       1221-1420-000
0122B                                  *FOR ITEM 98
                                       1221-1420-000
0124      00002.000    0411101-0057    LOCKWASHER # 4  EXTERNAL TOOTH CRES        EA
                                       QPL    - MS35335-57
0126      00001.000    0411101-0059    LOCKWASHER # 8  EXTERNAL TOOTH CRES        EA
                                       QPL    - MS35335-59
0127      00001.000    0972988-0043    SCREW 8-32 X .375 PAN HEAD CRES            EA

9999      00003.000    0239999-9999    COST, SHRINKAGE                            EA
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207405-0401	AA	825 TERMINAL, BASIC-220V, 10 CPI (BPO)

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2207421-0001	MECHANISM,10 CPI 1221-1421-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-1421-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-1421-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0405	TERMINAL ELECTRONICS, 825 - 220 VAC, BPO 1221-0041-001	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0003	MECHANISM,10 CPI W/O P/H 1221-3573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0104	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
2207405-0401	AA	825 TERMINAL, BASIC-220V, 10 CPI (BPO)

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.............................	UM
0108	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0109	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0110	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0111	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0112	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0113	00000.000	2217354-0001	FILTER, AC LINE	EA
0114	00001.000	2361131-0002	POWER CABLE ASSY - BPO 1221-2131-002	EA
0114A			MAY BE USED AS AN ALTERNATE 1221-2131-002	
0114B			FOR ITEM 113 1221-2131-002	
0115	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0116	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0117	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0117A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0117B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0401	TERM ELECTRONICS W/GND PLANE-230V BPO 1221-4974-000	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-4974-000	
0121B			FOR ITEM 23 1221-4974-000	
0122	00000.000	2207420-0001	PRINTHEAD ASSY, 30 VOLT 1221-1420-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1420-000	
0122B			*FOR ITEM 98 1221-1420-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
9999	00003.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207405-0402	AA	825 TERMINAL, BASIC-220V, 10/16 CPI(BPO)

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2207421-0002	MECHANISM,10/16 CPI 1221-2421-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-2421-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-2421-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2208265-0405	TERMINAL ELECTRONICS, 825 - 220 VAC, BPO 1221-0041-001	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0004	MECHANISM,10 & 16.5 CPI W/O P/H 1221-4573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0104	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207405-0402	AA	825 TERMINAL, BASIC-220V, 10/16 CPI(BPO)

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.............................	UM
0108	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0109	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0110	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0111	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0112	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0113	00000.000	2217354-0001	FILTER, AC LINE	EA
0114	00001.000	2361131-0002	POWER CABLE ASSY - BPO 1221-2131-002	EA
0114A			MAY BE USED AS AN ALTERNATE 1221-2131-002	
0114B			FOR ITEM 113 1221-2131-002	
0115	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0116	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0117	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0117A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0117B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0401	TERM ELECTRONICS W/GND PLANE-230V BPO 1221-4974-000	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-4974-000	
0121B			FOR ITEM 23 1221-4974-000	
0122	00000.000	2207420-0001	PRINTHEAD ASSY, 30 VOLT 1221-1420-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1420-000	
0122B			*FOR ITEM 98 1221-1420-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA
9999	00003.000	0239999-9999	COST, SHRINKAGE	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
2207405-0801	AA	825 TERMINAL,BASIC-115V,10CPI,KATAKANA

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0002	00001.000	0999739-0001	COVER, PAPER CHUTE 1255-1017-027	EA
0005	00004.000	0999885-0001	SHOCK MOUNT 1255-1043-013	EA
0006	00000.000	2207421-0001	MECHANISM,10 CPI 1221-1421-000	EA
0006A			MAY BE USED AS AN ALTERNATE 1221-2421-000	
0006B			FOR ITEM 97,98,99,100 & 101 1221-1421-000	
0007	00001.000	0999740-0001	NUTPLATE,HINGE-LEFT TERMINAL BASE 1684-1740-015	EA
0008	00002.000	0999741-0001	HINGE, TERMINAL COVER	EA
0012	00001.000	0999819-0002	FAN ASSY -10,000 HR 1221-0819-031	EA
0013	00001.000	0999720-0001	PLENUM, FAN 1255-1010-021	EA
0014	00001.000	0983863-0001	BRACKET,FAN MOTOR,743/745/763/765/820 1683-3863-033	EA
0023	00001.000	2207414-0801	TERMINAL ELEC W/GND PLANE-115V,KATAKANA 1221-0000-000	EA
0026	00001.000	0999744-0001	CARD FRAME, KEYBOARD/OPTION 1255-1018-031	EA
0027	00004.000	0999745-0001	KEEPER, CARD FRAME 1255-1019-017	EA
0030	00001.000	0996774-0002	CABLE,ELEC,8.50LG FLAT,FLEXIBLE 000779-88769-1	EA
0038	00001.000	0999918-0001	COVER ASSY 1221-1918-001	EA
0043	00002.000	0999762-0001	COVER, FALSE-ASR TERMINAL 1255-1027-016	EA
0062	00001.000	2210084-0017	SEMS, PAN HEAD 6-32X5/8 EXT TOOTH SEE TI- DRAWING	EA
0074	00001.000	0999792-0001	NUTPLATE,HINGE-RH TERMINAL BASE 1684-1792-013	EA
0076	00002.000	0999793-0001	NUTPLATE,HINGE- TERMINAL COVER 1684-1793-027	EA
0081	00001.000	0999927-0001	GROUND STRAP MECHANISM 1684-1927-019	EA
0087	00001.000	0999737-0002	BASE ASSY,WITHOUT GROUND PLANE 1221-2737-001	EA
0092	00001.000	2361118-0001	PANEL ASSEMBLY,EIA CABLE 1221-1118-038	EA
0093	00001.000	2361115-0001	GROUND STRAP,PAPER BASKET & EIA PANEL 1684-0115-009	EA
0094	00001.000	2211457-0001	CLIP,U-TYPE,SPRING STEEL SEE TI- DRAWING	EA
0097	00001.000	2206573-0003	MECHANISM,10 CPI W/O P/H 1221-3573-001	EA
0098	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0099	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0100	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0101	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0103	00006.000	2210084-0015	SEMS,PAN HEAD 6-32X7/16 EXT TOOTH SEE TI- DRAWING	EA
0104	00007.000	2211692-0005	SEMS,4-40X.437,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
2207405-0801	AA	825 TERMINAL,BASIC-115V,10CPI,KATAKANA

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.............................	UM
0108	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0109	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0110	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0111	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0112	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0113	00000.000	2217354-0001	FILTER, AC LINE	EA
0114	00001.000	2361131-0001	POWER CABLE ASSY - DOMESTIC 1221-1131-012	EA
0114A			MAY BE USED AS AN ALTERNATE 1221-1131-012	
0114B			FOR ITEM 113 1221-1131-012	
0115	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0116	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0117	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0117A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0117B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0801	TERM ELEC W/GND PLANE-115V,KATAKANA 1221-0000-000	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-0000-000	
0121B			FOR ITEM 23 1221-0000-000	
0122	00000.000	2207420-0001	PRINTHEAD ASSY, 30 VOLT 1221-1420-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1420-000	
0122B			*FOR ITEM 98 1221-1420-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV       DESCRIPTION.............................
2207405-0802    AA       825 TERMINAL,BASIC-115V,10/16CPI,KATAKAN

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0002      00001.000  0999739-0001   COVER, PAPER CHUTE                          EA
                                    1255-1017-027
0005      00004.000  0999885-0001   SHOCK MOUNT                                 EA
                                    1255-1043-013
0006      00000.000  2207421-0002   MECHANISM,10/16 CPI                         EA
                                    1221-2421-000
0006A                               MAY BE USED AS AN ALTERNATE
                                    1221-2421-000
0006B                               FOR ITEM 97,98,99,100 & 101
                                    1221-2421-000
0007      00001.000  0999740-0001   NUTPLATE,HINGE-LEFT TERMINAL BASE           EA
                                    1684-1740-015
0008      00002.000  0999741-0001   HINGE, TERMINAL COVER                       EA

0012      00001.000  0999819-0002   FAN ASSY -10,000 HR                         EA
                                    1221-0819-031
0013      00001.000  0999720-0001   PLENUM, FAN                                 EA
                                    1255-1010-021
0014      00001.000  0983863-0001   BRACKET,FAN MOTOR,743/745/763/765/820       EA
                                    1683-3863-033
0023      00001.000  2207414-0801   TERMINAL ELEC W/GND PLANE-115V,KATAKANA     EA
                                    1221-0000-000
0026      00001.000  0999744-0001   CARD FRAME, KEYBOARD/OPTION                 EA
                                    1255-1018-031
0027      00004.000  0999745-0001   KEEPER, CARD FRAME                          EA
                                    1255-1019-017
0030      00001.000  0996774-0002   CABLE,ELEC,8.50LG FLAT,FLEXIBLE             EA
                                    000779-88769-1
0038      00001.000  0999918-0001   COVER ASSY                                  EA
                                    1221-1918-001
0043      00002.000  0999762-0001   COVER, FALSE-ASR TERMINAL                   EA
                                    1255-1027-016
0062      00001.000  2210084-0017   SEMS, PAN HEAD 6-32X5/8 EXT TOOTH           EA
                                    SEE TI- DRAWING
0074      00001.000  0999792-0001   NUTPLATE,HINGE-RH TERMINAL BASE             EA
                                    1684-1792-013
0076      00002.000  0999793-0001   NUTPLATE,HINGE- TERMINAL COVER              EA
                                    1684-1793-027
0081      00001.000  0999927-0001   GROUND STRAP MECHANISM                      EA
                                    1684-1927-019
0087      00001.000  0999737-0002   BASE ASSY,WITHOUT GROUND PLANE              EA
                                    1221-2737-001
0092      00001.000  2361118-0001   PANEL ASSEMBLY,EIA CABLE                    EA
                                    1221-1118-038
0093      00001.000  2361115-0001   GROUND STRAP,PAPER BASKET & EIA PANEL       EA
                                    1684-0115-009
0094      00001.000  2211457-0001   CLIP,U-TYPE,SPRING STEEL                    EA
                                    SEE TI- DRAWING
0097      00001.000  2206573-0004   MECHANISM,10 & 16.5 CPI W/O P/H             EA
                                    1221-4573-001
0098      00001.000  2217374-0001   PRINTHEAD ASSY, UNIVERSAL-82X               EA
                                    1221-1374-001
0099      00002.000  0994199-0001   NUT,PRINTHEAD                               EA

0100      00001.000  0983903-0002   CLIP,CABLE                                  EA
                                    1680-1903-026
0101      00001.000  0999791-0001   CABLE ASSY,PRINTHEAD                        EA
                                    1221-1791-056
0103      00006.000  2210084-0015   SEMS,PAN HEAD 6-32X7/16 EXT TOOTH           EA
                                    SEE TI- DRAWING
0104      00007.000  2211692-0005   SEMS,4-40X.437,PAN HEAD,CONE WASHER         EA
                                    SEE TI- DRAWING
0107      00001.000  2210006-0002   ASSY, HEX NUT, LOCKWASHERS                  EA
                                    092550-SEE DRAWING
```

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2207405-0802	AA	825 TERMINAL,BASIC-115V,10/16CPI,KATAKAN

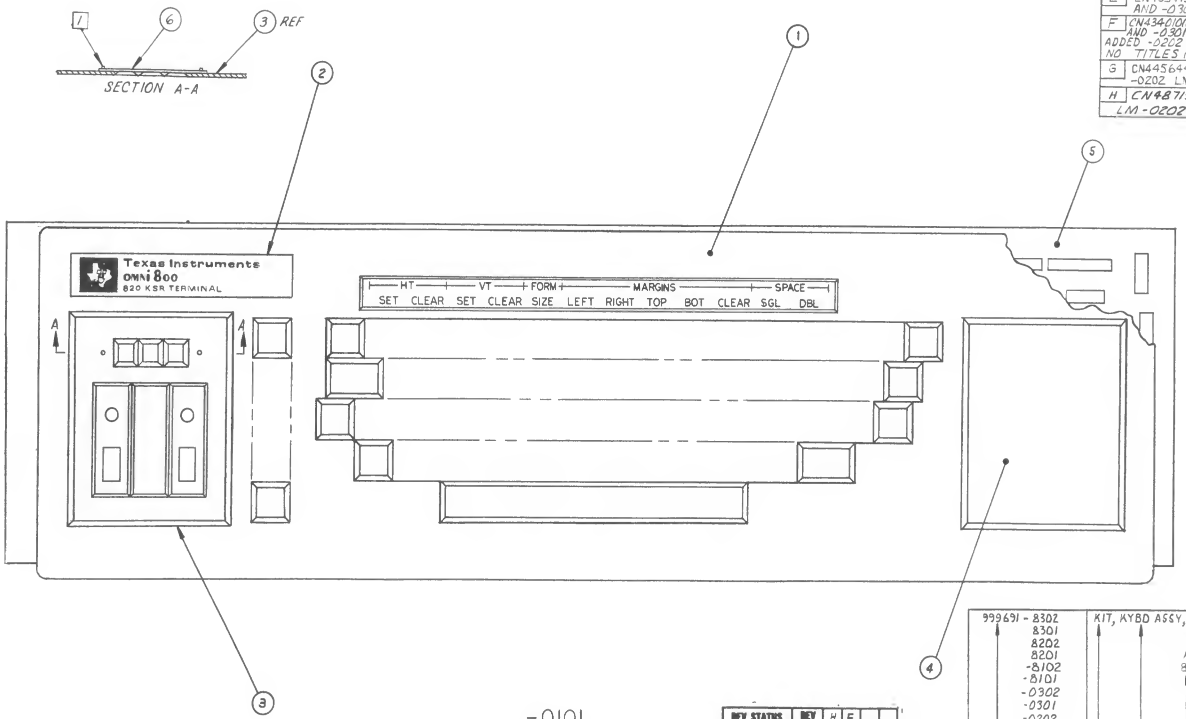
ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0108	00004.000	2211690-0026	SEMS,8-32 X1.00,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0109	00001.000	2210006-0003	ASSY,HEX NUT,LOCKWASHERS, 8-32 092550-SEE DRAWING	EA
0110	00001.000	0972684-0018	SCREW 8-32 X 3/8 THD FRM,SLOT HX WSR HD	EA
0111	00002.000	2211690-0005	SEMS,4-40 X.437,PAN HEAD,FLAT WASHER SEE TI- DRAWING	EA
0112	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0113	00000.000	2217354-0001	FILTER, AC LINE	EA
0114	00001.000	2361131-0001	POWER CABLE ASSY - DOMESTIC 1221-1131-012	EA
0114A			MAY BE USED AS AN ALTERNATE 1221-1131-012	
0114B			FOR ITEM 113 1221-1131-012	
0115	00001.000	2210084-0024	SEMS, #8-32X.375 PAN HD,SLOTTED,ZINC SEE TI- DRAWING	EA
0116	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0117	00000.000	0999737-0001	BASE ASSEMBLY, 820 1221-9737-000	EA
0117A			MAY BE USED AS AN ALTERNATE 1221-9737-000	
0117B			FOR ITEM 87 1221-9737-000	
0119	00002.000	2361126-0001	HINGE, STOP - 820 COVER 1684-0126-009	EA
0120	00004.000	2210084-0016	SEMS SCREW,6-32X.500,EXTERNAL TOOTH,L.W. SEE TI- DRAWING	EA
0121	00000.000	0999974-0801	TERM ELEC W/GND PLANE-115V,KATAKANA 1221-0000-000	EA
0121A			MAY BE USED AS AN ALTERNATE 1221-0000-000	
0121B			FOR ITEM 23 1221-0000-000	
0122	00000.000	2207420-0001	PRINTHEAD ASSY, 30 VOLT 1221-1420-000	EA
0122A			*MAY BE USED AS AN ALTERNAT 1221-1420-000	
0122B			*FOR ITEM 98 1221-1420-000	
0124	00002.000	0411101-0057	LOCKWASHER # 4 EXTERNAL TOOTH CRES QPL - MS35335-57	EA
0126	00001.000	0411101-0059	LOCKWASHER # 8 EXTERNAL TOOTH CRES QPL - MS35335-59	EA
0127	00001.000	0972988-0043	SCREW 8-32 X .375 PAN HEAD CRES	EA

DWG NO 999691 SH 1

1 T

REV	DESCRIPTION	DATE	APPROVED
A	CN440308 7/7/78 D. STARNES LM UP DATE	7/8/78	D. STARNES
B	CN 439870 M Hagedo – 1. LM UPDATE ITEM 6 ADDED 2, 1C-8 & 2C-8 ADDED SECTION A-A 3. ADDED NOTE 1	8/26/78	D. Starnes
C	CN451062 Pat Edwards 1. ADDED DASH 0201 & 0202; 2. SH2(D-7) FLAG NOTE 1 WAS ITEM 1	5-14-79	D. Starnes
D	CN443638(D) S Dodson (1) ADDED ITEM 7 TO -0101 AND -0102	7/5/79	
E	CN433419(C) S Dodson (1) ADDED -0301 AND -0302	8/3/79	S Dodson
F	CN434010(C) S Dodson (1) SH 1 ADDED -0201 AND -0301 BELOW PICTORIAL, SH 2 ADDED -0202 AND -0302 BELOW PICTORIAL (2) REVISED DASH NO TITLES (3) ADDED 820 TO DWG TITLE	10/4/79	S Dodson
G	CN445644 (D) M Kuehn (1) ON -0201 AND -0202 LM'S ADDED ITEM 8	3/2/81	R Dalgren
H	CN487153 (E) D. Starnes LM -0202 ONLY ITEM 5 PART NUMBER WAS 999868-0202	7-23-82	

NOTES: UNLESS OTHERWISE SPECIFIED:
☐1 INSTALL ITEM 6 TO ITEM 3 BY HEAT SWAGING POST - 2 PLACES



-0101
-0201
-0301

REV STATUS OF SHEETS	REV	H	F		
	SH	1	2		

PART NUMBER	DESCRIPTION
999691-8302	KIT, KYBD ASSY, INTL ASCII W/NUM PAD TESTED
8301	INTL ASCII TESTED
8202	APL/ASCII W/NUM PAD TESTED
8201	APL/ASCII TESTED
-8102	820, FULL ASCII W/NUM PAD, TST
-8101	FULL ASCII, TESTED
-0302	EUROPEAN W/NUMERIC PAD
-0301	EUROPEAN
-0202	W/NUMERIC PAD
-0201	APL
-0102	FULL ASC II W/NUMERIC PAD
999691-0101	KIT, KYBD ASSY, 820, FULL ASC II

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999683	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 + .004 − .001	.126 THRU .250 + .005 − .001	.251 THRU .500 + .006 − .001
.501 THRU .750 + .008 − .001	.751 THRU 1.000 + .010 − .001	1.001 THRU 2.000 + .012 − .001

		DATE
DWN	Arthur L. Clark	12.16.77
CHK	Mike Wolf	3/30/78
ENGR	Walt Russell	7/8/78
APVD	Jim Davis	7/8/78
QA	Bill Cushman	7/8/78
CONTR	B. Hedges	7/8/78
RLSE		7-8-78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

KIT, KEYBOARD ASSY,
820

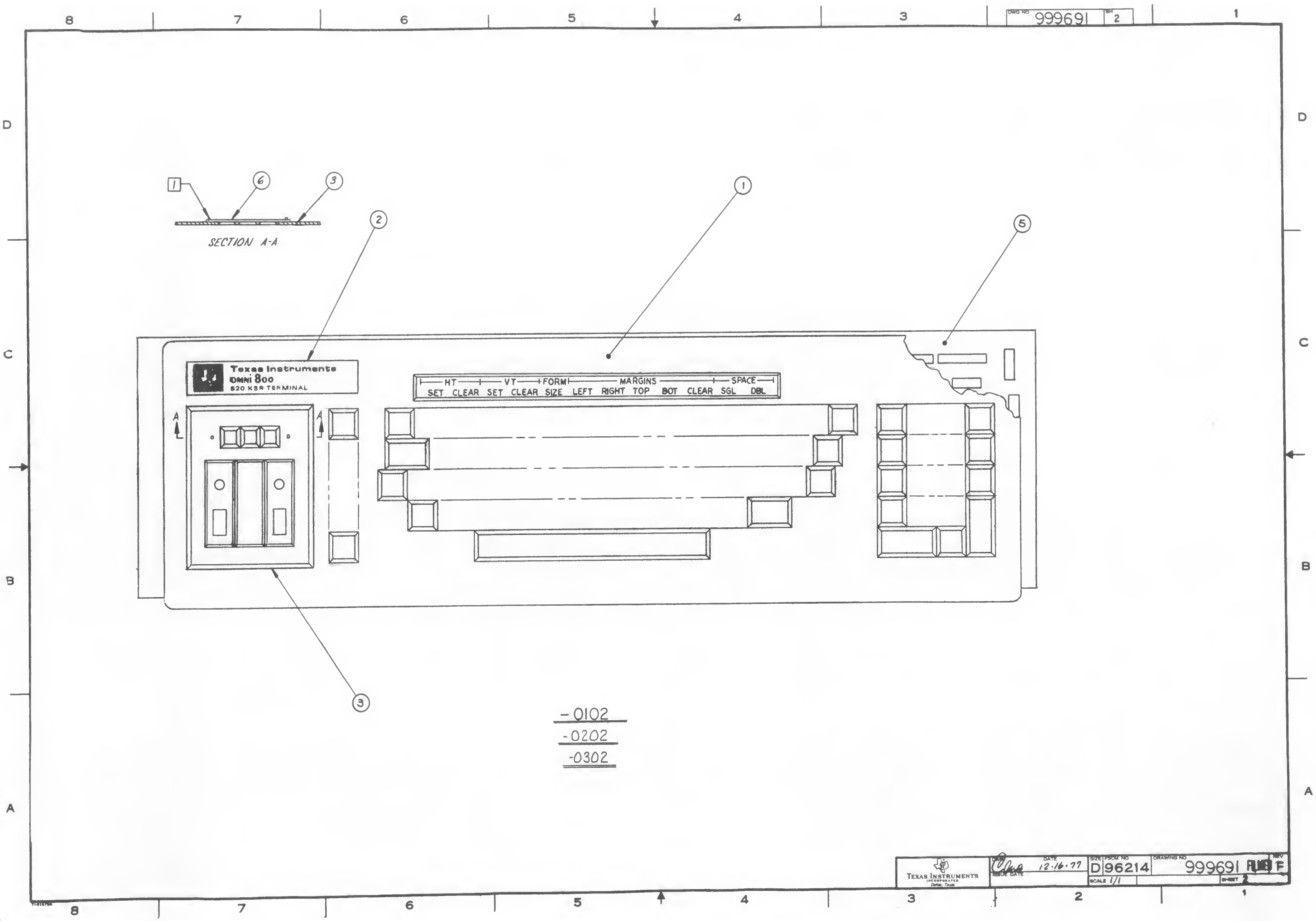
SIZE D FSCM NO 96214 DRAWING NO 999691 FILMED
SCALE 1/1 SHEET 1 OF 2

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS. SEE TI DRAWING 729467

300

LM


DWG NO 999691
SH 2
8
7
6
5
4
3
1
D
C
B
A
1
6
3
SECTION A-A
2
1
5
Texas Instruments
OMNI 800
820 KSR TERMINAL
HT
VT
FORM
MARGINS
SPACE
SET
CLEAR
SET
CLEAR
SIZE
LEFT
RIGHT
TOP
BOT
CLEAR
SGL
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A
A
3
-0102
-0202
-0302
TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas
DWN
DATE 12·16·77
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 999691
REV F
SCALE 1/1
SHEET 2

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999691-0101    H         KEYBOARD,FULL ASCII (STANDARD)

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   0999766-0001   BEZEL, KEYBOARD                          EA
                                     1255-1028-023
0002      00001.000   0999758-0001   NAMEPLATE, 820 TERMINAL                  EA

0003      00001.000   0999767-0002   PLATE, KEYBOARD, US ASCII                EA
                                     1255-1031-025
0004      00001.000   0999767-0001   PLATE, KEYBOARD, BLANK                   EA
                                     1255-1030-007
0005      00001.000   0999712-0101   KYBD, 820 KSR- STD ASCII                 EA
                                     1221-1712-073
0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                   EA
                                     1255-1016-009
0007      00000.000   0999864-0101   KYBD,UNENCODED  USASCII                  EA
                                     096306-
0007A                                THIS ITEM MAY BE
                                     096306-
0007B                                SUBSTITUTED FOR ITEM 5.
                                     096306-
0007C                                IT IS TO BE USED ON ALL
                                     096306-
0007D                                INT'L TERMINALS
                                     096306-
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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999691-0102    H         KEYBOARD,FULL ASCII W/NUMERIC PAD

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   0999766-0001   BEZEL, KEYBOARD                          EA
                                     1255-1028-023
0002      00001.000   0999758-0001   NAMEPLATE, 820 TERMINAL                  EA

0003      00001.000   0999767-0002   PLATE, KEYBOARD, US ASCII                EA
                                     1255-1031-025
0005      00001.000   0999712-0102   KYBD,820KSR,STD. ASCII,W/NUM CLST OPTION EA
                                     1221-2712-075
0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                   EA
                                     1255-1016-009
0007      00000.000   0999864-0102   KYBD,UNENCODED,W/NUM KEYPAD,USASCII      EA
                                     096306-
0007A                                THIS ITEM MAY BE
                                     096306-
0007B                                SUBSTITUTED FOR ITEM 5.
                                     096306-
0007C                                IT IS TO BE USED ON ALL
                                     096306-
0007D                                INT'L TERMINALS
                                     096306-
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999691-0201    H         KEYBOARD,APL/ASCII

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION........................... UM

0001      00001.000   0999766-0001   BEZEL, KEYBOARD                          EA
                                     1255-1028-023
0002      00001.000   0999758-0001   NAMEPLATE, 820 TERMINAL                  EA

0003      00001.000   0999767-0004   PLATE, KEYBOARD, APL                     EA
                                     1255-1033-007
0004      00001.000   0999767-0001   PLATE, KEYBOARD, BLANK                   EA
                                     1255-1030-007
0005      00001.000   0999868-0201   KYBD,UNENCODED, APL                      EA
                                     096306-
0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                   EA
                                     1255-1016-009
0008      00001.000   0996750-0001   IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD EA
                                     1221-6750-000
0008A                                U11 ON TERMINAL ELEC. ASSY.
                                     1221-6750-000
```

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999691-0202    H         KEYBOARD,APL/ASCII W/NUMERIC  PAD

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION........................... UM

0001      00001.000   0999766-0001   BEZEL, KEYBOARD                          EA
                                     1255-1028-023
0002      00001.000   0999758-0001   NAMEPLATE, 820 TERMINAL                  EA

0003      00001.000   0999767-0004   PLATE, KEYBOARD, APL                     EA
                                     1255-1033-007
0005      00001.000   0999712-0202   KEYBOARD,820 KSR-APL W/NUM. CLUSTER OPT  EA
                                     1221-2714-004
0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                   EA
                                     1255-1016-009
0008      00001.000   0996750-0001   IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD EA
                                     1221-6750-000
0008A                                *U11 ON TERMINAL ELEC ASSY
                                     1221-6750-000
```

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV       DESCRIPTION............................
0999691-0301    H        KEYBOARD,INTL FULL ASCII

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0001      00001.000  0999766-0001   BEZEL, KEYBOARD                            EA
                                    1255-1028-023
0002      00001.000  0999758-0001   NAMEPLATE, 820 TERMINAL                    EA

0003      00001.000  0999767-0002   PLATE, KEYBOARD, US ASCII                  EA
                                    1255-1031-025
0004      00001.000  0999767-0001   PLATE, KEYBOARD, BLANK                     EA
                                    1255-1030-007
0005      00001.000  0999864-0101   KYBD,UNENCODED  USASCII                    EA
                                    096306-
0006      00001.000  0999733-0001   FILTER, KEYBOARD PLATE                     EA
                                    1255-1016-009
```

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02/05/83

PART NUMBER    REV       DESCRIPTION............................
0999691-0302    H        KEYBOARD,INTL ASCII W/NUMERIC PAD

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0001      00001.000  0999766-0001   BEZEL, KEYBOARD                            EA
                                    1255-1028-023
0002      00001.000  0999758-0001   NAMEPLATE, 820 TERMINAL                    EA

0003      00001.000  0999767-0002   PLATE, KEYBOARD, US ASCII                  EA
                                    1255-1031-025
0005      00001.000  0999864-0102   KYBD,UNENCODED,W/NUM KEYPAD,USASCII        EA
                                    096306-
0006      00001.000  0999733-0001   FILTER, KEYBOARD PLATE                     EA
                                    1255-1016-009
```

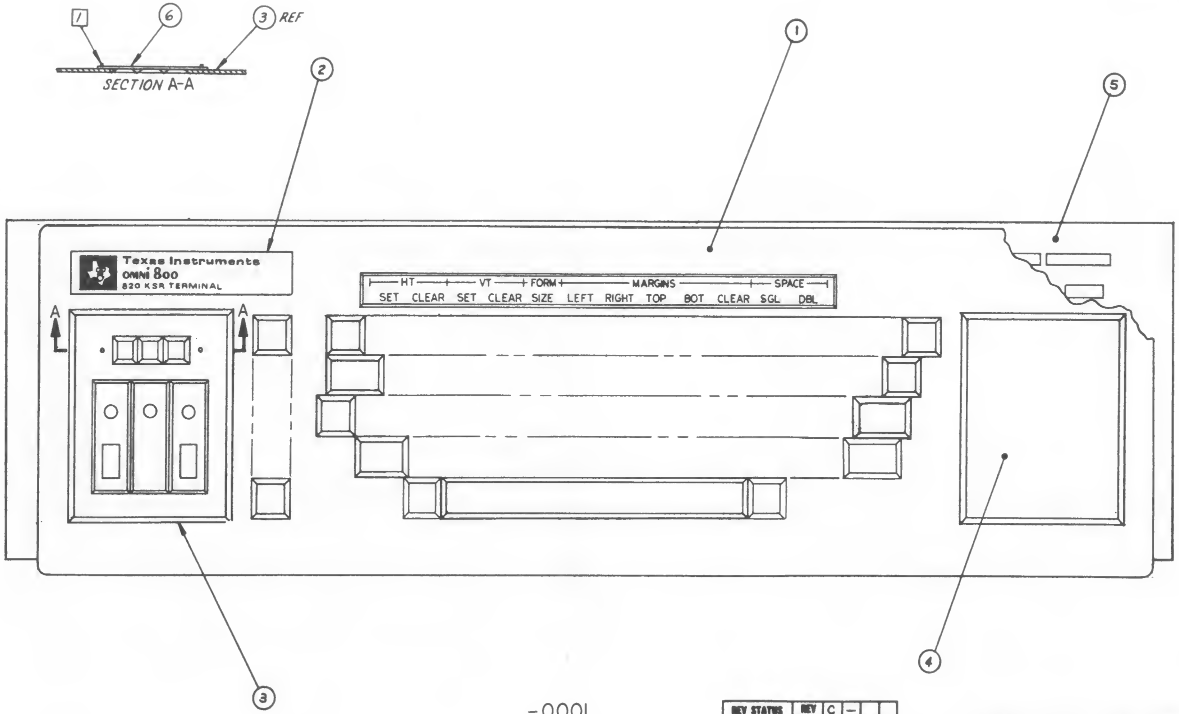
DWG NO	SH
999859	1

REVISIONS

REV	DESCRIPTION	DATE	
A SH1	CN445396 7-11-79 ZA-1, TITLE WAS" KIT, KEYBOARD	7/11/79	
	FORMAL RELEASE		
B	CN434061 (C) SD (1) REVISED TITLES OF -1↑-2 (2)-1 LM: ITEM 5 WAS -0101 (3)-2 LM: ITEM 5 WAS -0102'	1-7-80	SDodson
C	CN458906 (D) J.E. Murany (1) REVISED TITLE OF -1 LM (2) SH1 -1 DESCRIPTION WAS: KYBD, KATAKANA, W/NUM PAD 820	3-25-80	SDodson

NOTES: UNLESS OTHERWISE SPECIFIED:

1. INSTALL ITEM 6 TO ITEM 3 BY HEAT SWAGING POST - 2 PLACES



-0001

REV STATUS OF SHEETS	REV	C	—		
	SH	1	2		

PART NUMBER	DESCRIPTION
999859-0002	KYBD, KATAKANA, W/NUM PAD, 820
999859-0001	KYBD, KATAKANA 820

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999683	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

		DATE
DWN	S.	5-11-79
CHK		7/11/79
ENGR	Orlando	7/12/79
APVD	Dennis R Fritsche	7/12/79
QA	Bradford	7/12/79
CONTR		7/13/79
		7/13/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

KEYBOARD KIT, KATAKANA

SIZE	FSCM NO	DRAWING NO
D	96214	999859

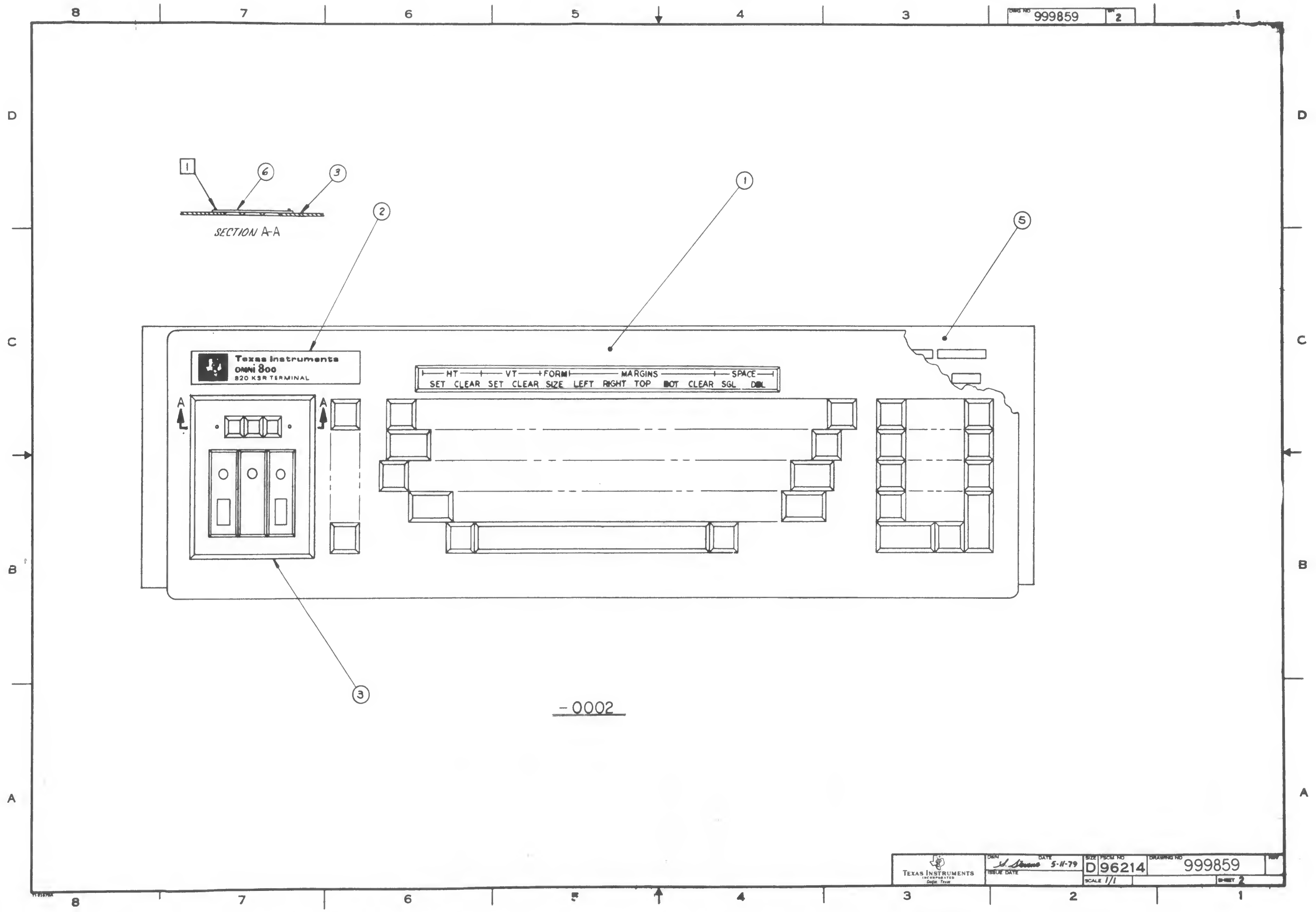
SCALE 1/1 SHEET 1

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

30

1/1



999859
2
SECTION A-A
1
6
3
2
1
5
Texas Instruments
OMNI 800
820 KSR TERMINAL
HT
VT
FORM
MARGINS
SPACE
SET CLEAR SET CLEAR SIZE LEFT RIGHT TOP BOT CLEAR SGL DBL
A
A
3
-0002
TEXAS INSTRUMENTS
5-11-79
D 96214
999859
SCALE 1/1
SHEET 2

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION..............................
0999859-0001    C         KEYBOARD,KATAKANA,820

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   2206571-0001   BEZEL,KYBD,820 KATAKANA                  EA
                                     -    -     -000
0002      00001.000   0999758-0001   NAMEPLATE, 820 TERMINAL                  EA

0003      00001.000   0999767-0003   PLATE, KEYBOARD, KATAKANA                EA
                                     1255-1032-000
0004      00001.000   0999767-0001   PLATE, KEYBOARD, BLANK                   EA
                                     1255-1030-007
0005      00001.000   2206572-0001   KEYBOARD, UNENCODED, KATAKANA            EA

0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                   EA
                                     1255-1016-009
```

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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
0999859-0002    C         KYBD,KATAKANA,W/NUM PAD,820

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   2206571-0001   BEZEL,KYBD,820 KATAKANA                  EA
                                     -    -     -000
0002      00001.000   0999758-0001   NAMEPLATE, 820 TERMINAL                  EA

0003      00001.000   0999767-0003   PLATE, KEYBOARD, KATAKANA                EA
                                     1255-1032-000
0005      00001.000   2206572-0002   KEYBOARD, UNENCODED, KATAKANA W/PAD      EA

0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                   EA
                                     1255-1016-009
```

NOTES: UNLESS OTHERWISE SPECIFIED:

1. TIGHTEN TO 16±1 IN-LB AFTER POSITIONING CARRIAGE
2. TIGHTEN TO 13±1 FT-LB AFTER POSITIONING PLATEN (ITEM 3) AND BEFORE ASSEMBLING HOUSINGS (ITEM 34) TO SIDE PLATES (ITEMS 1&2)
3. TIGHTEN TO 30±1 IN-LB AFTER POSITIONING SIDE PLATES
4. ADJUST SWITCH (ITEM 44) TO DIM SHOWN WHEN SWITCH LEVER (IN CLOSED POSITION) IS IN CONTACT WITH SWITCH CASE
5. WITH HEAD ADJUSTMENT LEVER (ITEM 10) IN INNERMOST POSITION, ADJUST PLATEN TO CARRIAGE HEAD MOUNTING SURFACE A DISTANCE OF 2.216±.002 OVER FULL TRAVEL OF CARRIAGE. CHECK THAT PARALLISM BETWEEN CARRIAGE TRAVEL AND PLATEN DOES NOT VARY MORE THAN .004 IN MIDDLE AND OUTERMOST POSITIONS OF HEAD ADJUST LEVER
6. TIGHTEN TO 4.5±.5 IN-LB
7. TIGHTEN SCREW (ITEM 67) 1/4 TO 1/2 TURN AFTER ZERO END PLAY IS ACHIEVED IN UPPER CARRIAGE ROD. CAUTION! OVERTIGHTENING (GREATER THAN 1/2 TURN PAST ZERO END PLAY) WILL DEFORM SIDE PLATE AND CREATE EXCESSIVE FRICTION IN HEAD ADJUST LEVER MOVEMENT.
8. USE 10 TO 12 DROPS ON FELT AT EACH END
9. PAPER GUIDE (ITEM 4) SHALL BE ADJUSTED SO THAT THE ASSY SHALL MEET THE DIMENSION SHOWN
10. PHASING MARKS ON PAPER TRACTOR (ITEM 25) SHALL BE ALIGNED TO THE SAME CORNER OF DRIVE SHAFT (ITEM 28)
11. MARK ASSY NO, APPROPRIATE REV LETTER, SERIAL NO (SITE DATE CODE & SERIAL NO) PER ITEM 94 PARAGRAPH 3.0 AND MADE IN USA ON ITEM 93 LOCATED APPROXIMATELY AS SHOWN USING GOTHIC STYLE LETTERS PER PROCESS 1
12. ASSEMBLE PAPER RETAINER (ITEM 5) SO THAT ASSEMBLY MEETS DIMENSION SHOWN

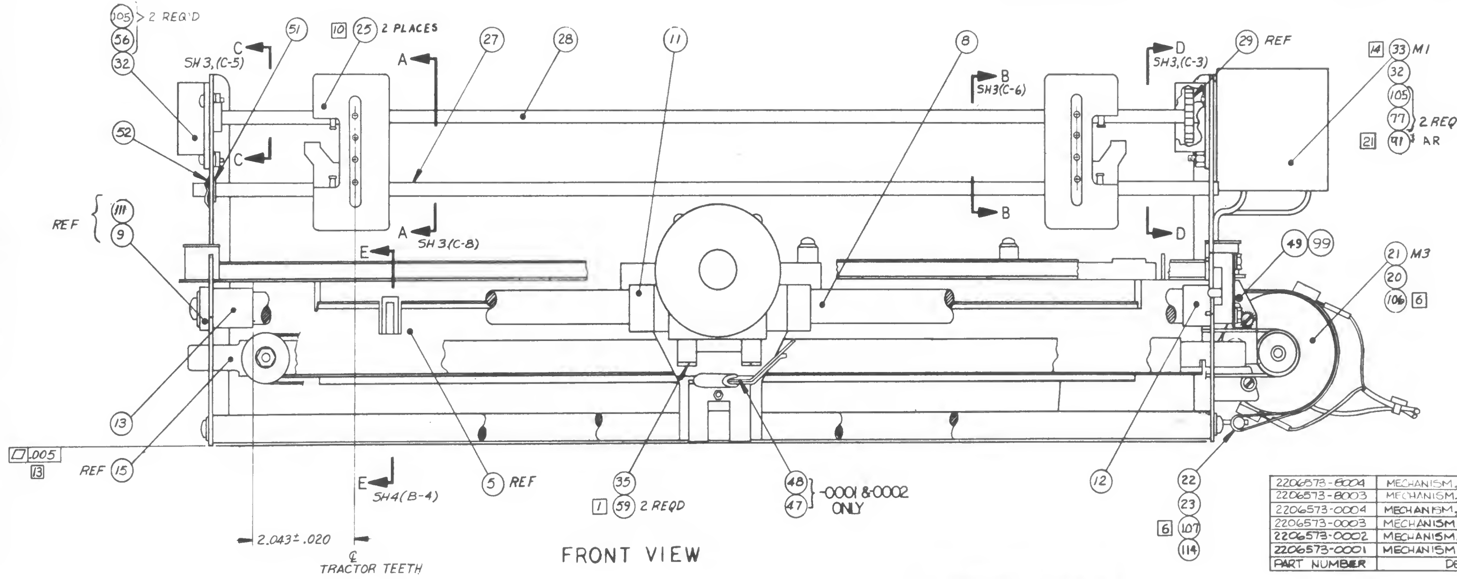
NOTES CONT'D ON SH 2

DWG NO 2206573 SH 1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN452643(D) S Dodson (1) ADDED NOTE 23 (2) QTY OF: ITEM 56 WAS 7, ITEM 61 WAS 2, ITEMS 77 AND 78 WERE 10 AND ITEM 79 WAS 6, ON -14-2 (3) DELETED ITEM 55, -14-2	1-16-80	S Dodson
B	CN439093 (D) JVClark (1) DELETED MEASUREMENTS .05 ± .05 AND SYMMETRY REQUIREMENTS (2) ITEM 93 WAS NEARSIDE	2-21-80	S Dodson
C	CN 460093 (D) D Andersen (1) ADDED ITEMS 96 & 97 TO -0001 & -0002 LM	5-2-80	S Dodson
D	CN455697 (D) M Kuhn (1) REVISED NOTE 16 (NO MICROFILM AVAILABLE)	7-17-80	S Dodson
E	CN469165 (D) M Kuhn (1) ADD ITEM 95, 95A, & 95B TO ALL LM'S (NO MICROFILM AVAILABLE)	7-17-80	S Dodson
F	CN457906 (D) M Kuhn (1) ITEM 58 WAS DELETED (2) ITEM 61 HAD QTY OF 10 (3) ITEM 79 HAD QTY OF 3 (4) REMOVED CALLOUTS AND PICTORIAL OF ITEMS 58, 61, & 79 OF SH3 (B-4) (NO MICROFILM AVAILABLE)	7-17-80	S Dodson

CONTINUED ON SHEET 5



FRONT VIEW

PART NUMBER	DESCRIPTION
2206573-8004	MECHANISM, 10/16.5CPI W/O PHD 820, TESTED
2206573-8003	MECHANISM, 10CPI W/O PHD 820 TESTED
2206573-0004	MECHANISM, 10/16.5 CPI W/O P/H, 820
2206573-0003	MECHANISM, 10 CPI W/O PHD, 820
2206573-0002	MECHANISM, 10/16.5 CPI, W/PHD, 820
2206573-0001	MECHANISM, 10 CPI, W/PHD, 820

REV STATUS OF SHEETS	REV	AE	T	T	T	AE
	SHEET	1	2	3	4	5

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ± .010 2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL D 1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
999690	8740

APPLICATION

DWN Gosit DATE 7-10-79
CHK Dave Stamm 8-8-79
ENGR Charlie Haynes 8-9-79
APVD Dennis R Kitchel 8/9/79
QC Bradford 8/9/79
CONTR 8-8-79
9/9/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

MECHANISM, 820

SIZE D FSCM NO 96214 DRAWING NO 2206573
SCALE 1/1 SHEET 1 OF 5

1	MARK	100-00	00	HEIGHT .10 COLOR BLACK	11
SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729487

13 APPLIES AT LOCATION DIRECTLY BELOW THE TWO BOTTOM SPACER MOUNTING HOLES

14 ORIENT MOTOR (ITEM 33) SO THAT MOTOR CABLE EXITS IN POSITION SHOWN

15 TIGHTEN TO 9±1 IN-LB (-0001 & -0002 ONLY)

16 WHEN RIBBON DRIVE ASSY IS INSTALLED PUSH TOP PLATE TOWARD PLATEN AS FAR AS POSSIBLE - THEN TIGHTEN SCREWS INTO PLATEN.

17 TIGHTEN PRINTHEAD MOUNTING NUTS (ITEM 37) TO 5.0±.5 IN LB (FINGERTIGHT PLUS ONE SIXTH (1/6) TURN APPROXIMATELY)

18 ROLLER (ITEM 45) SHALL BE ASSEMBLED TO HOUSING (ITEM 34) AND NOSEGUIDE (ITEM 38) BY SNAPPING IN PLACE. AFTER ASSEMBLY, ROLLERS SHALL ROTATE FREELY

19 NOSEGUIDE (ITEM 38) SHALL BE ASSEMBLED PER DIM SHOWN IN SECTION K-K

20 APPLY LUBRICANT (ITEM 91) TO SUPPORT (ITEM 15) WHERE RETAINER (ITEM 5) PASSES THRU LEFT SIDE PLATE (ITEM 2 ONLY)

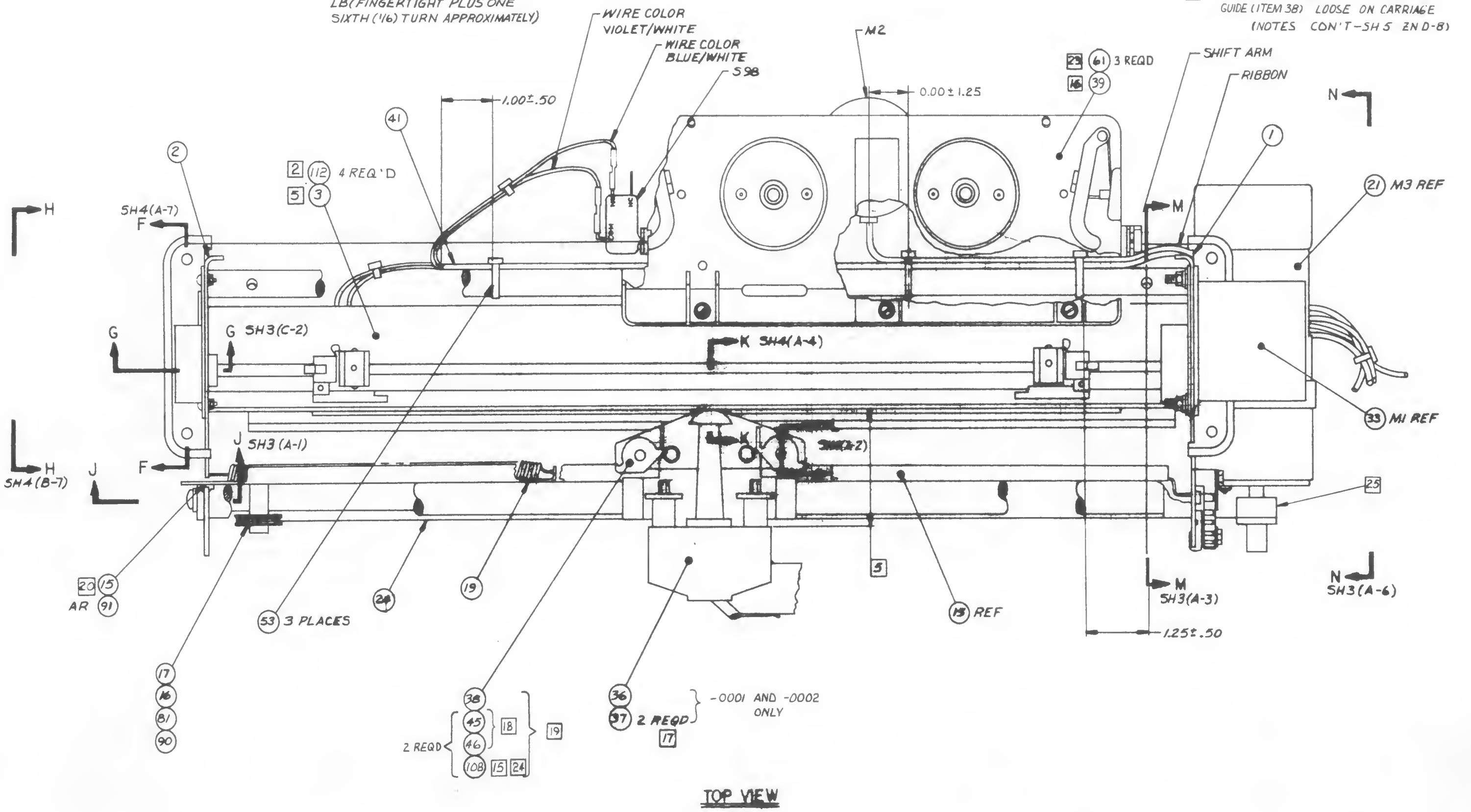
21 APPLY LUBRICANT (ITEM 91) BETWEEN RIVET ON GEAR (ITEM 29) AND MOTOR ASSY (ITEM 33)

22 ~~AFTER ASSY IT IS PERMISSABLE FOR BUMPER TO TOUCH SIDE PLATE PLANE~~

23 TIGHTEN TO 20±2 IN LBS AFTER POSITIONING COMPONENT

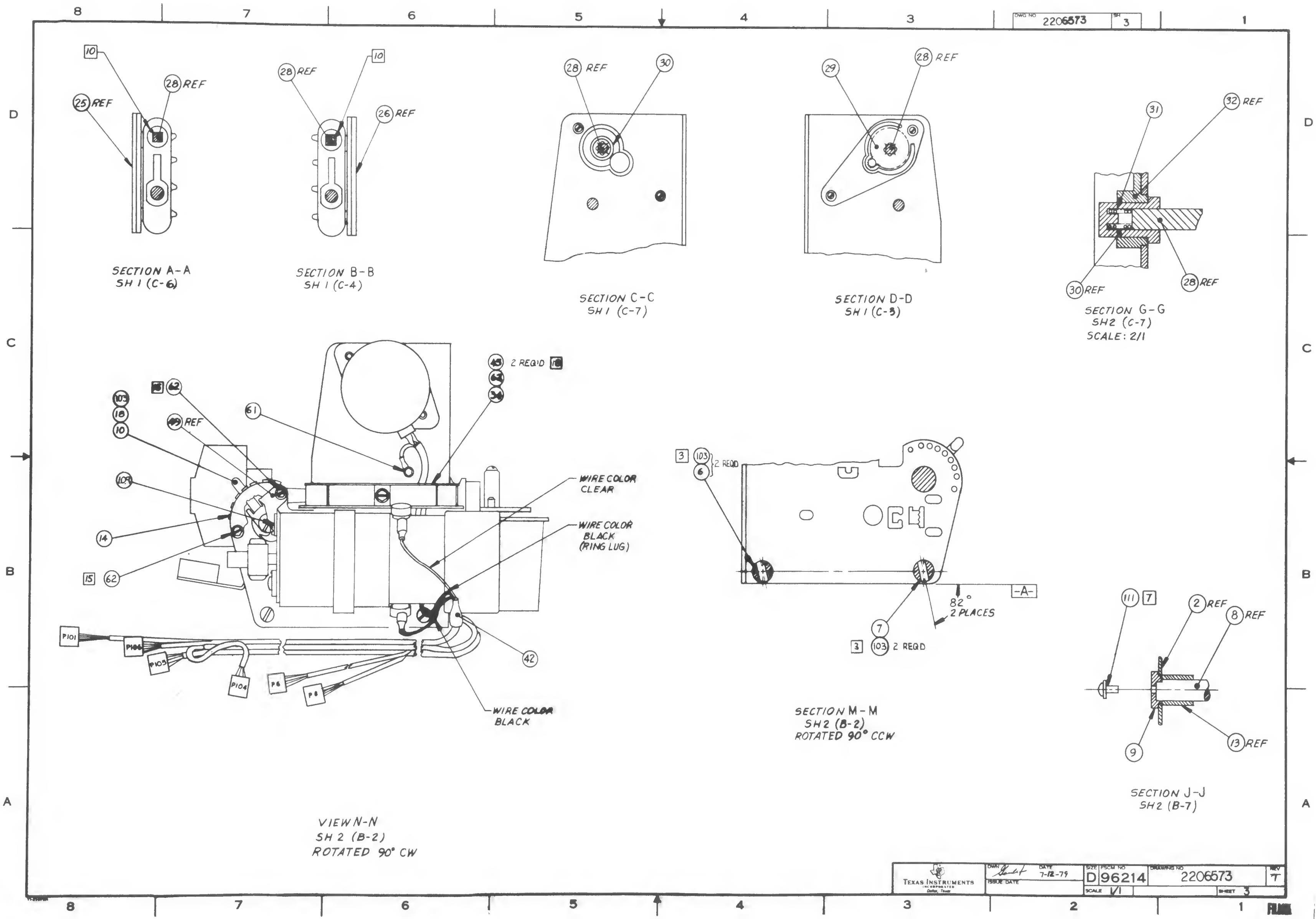
24 ON -0003 AND -0004 ONLY LEAVE NOSE GUIDE (ITEM 38) LOOSE ON CARRIAGE

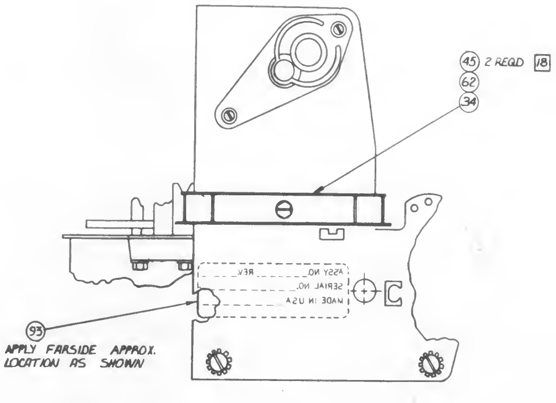
(NOTES CON'T-SH 5 ZN D-8)



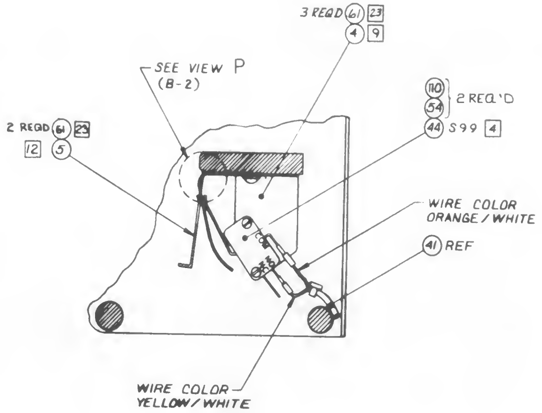
TOP VIEW

TEXAS INSTRUMENTS INCORPORATED	DWN Act	DATE 7-9-79	SIZE D	FSCM NO 96214	DRAWING NO 2206573	REV T
	ISSUE DATE		SCALE 1/1			SHEET 2

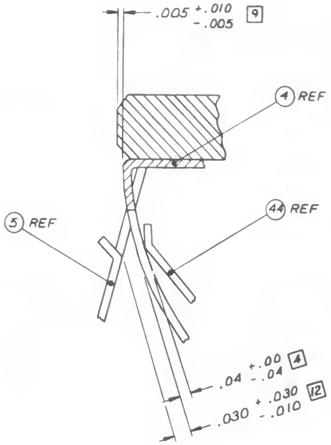
DWG NO 2206573 SH 3
8
7
6
5
4
3
2
1
D
C
B
A
10
28 REF
25 REF
SECTION A-A
SH I (C-6)
28 REF
10
26 REF
SECTION B-B
SH I (C-4)
28 REF
30
SECTION C-C
SH I (C-7)
29
28 REF
SECTION D-D
SH I (C-3)
31
32 REF
30 REF
28 REF
SECTION G-G
SH2 (C-7)
SCALE: 2/1
103
18
10
62
49 REF
61
109
14
15
62
45
2 REQ'D
WIRE COLOR
CLEAR
WIRE COLOR
BLACK
(RING LUG)
P101
P106
P105
P104
P6
P8
42
WIRE COLOR
BLACK
VIEW N-N
SH 2 (B-2)
ROTATED 90° CW
3
103
6
2 REQD
-A-
82°
2 PLACES
7
3
103
2 REQD
SECTION M-M
SH2 (B-2)
ROTATED 90° CCW
111
7
2 REF
8 REF
9
13 REF
SECTION J-J
SH2 (B-7)
TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas
DWN
DATE 7-12-79
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2206573
REV T
SCALE 1/1
SHEET 3



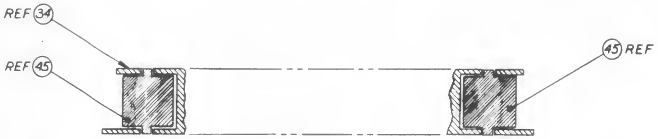
VIEW H-H
SH 2 (B-8)
ROTATED 90° CCW



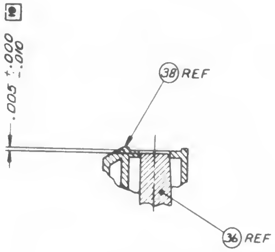
SECTION E-E
SH 1 (B-7)



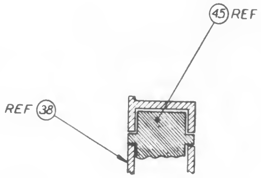
VIEW P
(D-4)
SCALE: NONE



SECTION F-F
SH 2 (C-7)
SCALE: 2/1
ROTATED 90° CW
2 PLACES
(1 OPP HAND)



SECTION K-K
SH 2 (C-4)
SCALE: 2/1
-0001 AND -0002 ONLY



SECTION L-L
SH 2 (B-4)
SCALE: 2/1
2 PLACES

TEXAS INSTRUMENTS INCORPORATED
DWN S. Stirno DATE 7-12-79
ISSUE DATE
SIZE D FSCM NO 96214 DRAWING NO 2206573 REV T
SCALE 1/1 SHEET 4

DWG NO 2206573 SH 5

REVISIONS

REV	DESCRIPTIONS	DATE	APPROVED
G	CN457915 (D) M Kuehn (1) REVISED PER EXTENSIVE ENGINEERING CHANGES (NO MICROFILM AVAILABLE) (2) ADDED SHEET 5	7-17-80	Dodson
H	CN469090 (D) M Kuehn (1) ITEM 77 WAS QTY OF 9	7-17-80	Dodson
J	CN457265 (D) M Kuehn (1) ON -0001 & -0002 LM'S, ITEM 36 WAS P/N999732-1 (2) ON ALL LM'S, ADDED ITEM 98	8-21-80	Dodson
K	CN 457942 (D) (1) ADDED NOTE 25 (2) ON ALL DASH NO.S ADDED ITEM 99 (3) DELETED NOTE 22.	10-21-80	Dodson
L	CN457946 (D) M Kuehn (1) ON ALL LM'S, DELETED ITEMS 68 & 82 (2) ON ALL LM'S. ADDED ITEM 103 (3) SH 3 REVISED CALLOUTS	12/18/80	
M	CN457948 (D) M Kuehn (1) REVISED PER EXTENSIVE ENGR CHANGES	2-25-81	Dodson
N	CN472303 (D) M Kuehn (1) DELETED ITEM 46 TO ALL LM'S (2) REVISED NOTE 18	2-25-81	Dodson
P	CN465670 (D) M Kuehn (1) ON ALL LM'S, REVISED ITEMS 21, 96, AND 97	2-25-81	Dodson
R	CN457238 (D) M Kuehn (1) ON ALL LM'S, ITEM 53 QTY WAS 4 (2) ON VIEW N-N DELETED ALL DIMENSIONS	2-25-81	Dodson
T	CN472301 (D) Paul Root 1) REV PER EXT ENG CHANGES	7-15-81	
U	CN477838 (D) 1) ON PICTORIAL AND ALL LM'S DELETED ITEM 92	10-14-81	
V	CN477987 (E) 1) UPDATED LM	1-4-82	
W	CN477974 (D) PTRUNYON 1) ON-1 AND -2 LM ITEM 36 P/N WAS 2213940-0001; ADDED ITEM 113	3-31-82	
Y	CN497008 (D) D. Stearnes 1) SH1 NOTE 5 DIMENSION 2.218±.002 WAS 2.210±.002	7-20-82	
AA	CN468991 (D) (1) ON LM ITEM 93 WAS -7000	11-2-82	Dodson
AB	CN469008 (D) (1) ON LM: ITEMS 25 AND 102 WERE 996158-0003 AND 2220316-0001	11-2-82	Dodson
AC	CN500875 (C) (1) ADDED ITEM 114 ON F/D AND LM (2) ITEM 107 WAS 2210084-0017	11-2-82	Dodson
AD	CN503518 (D) (1) SH 1, ADDED -8003 & -8004 TO P/N DESC BLK (2) ON ALL LMS P/N FOR ITEM 61 WAS 972684-0011	2-25-83	
AE	CN507000 (D) (1) ON -0001 THRU -0004 LM'S ITEM 33 P/N WAS 0999829-0001, ALSO ITEM 91 QTY WAS AR (2) ON ALL LM'S THE TITLES WERE CHANGED	4-26-83	

25 THERE SHOULD BE 1 TO 1 1/6 TURNS OF WIRE ROPE REMAINING ON MOTOR END OF CAPSTAN WHEN CARRIAGE IS AGAINST LEFT BUMPER

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN M Kuehn DATE 7-14-80	SIZE D	FSCM NO 96214	DRAWING NO 2206573	REV AE
	ISSUE DATE	SCALE 1/1		SHEET 5	

FILMED

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION.............................
2206573-0001	AD	MECHANISM, 10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0001	00001.000	0999715-0001	SIDE PLATE,DRIVE MECHANISM-RIGHT SIDE 1684-1715-020	EA
0002	00001.000	0999715-0002	SIDE PLATE,DRIVE MECHANISM-LEFT SIDE 1684-2715-021	EA
0003	00001.000	0999724-0001	PLATEN, 820 TERMINAL 1680-2724-500	EA
0004	00001.000	0994210-0001	PAPER GUIDE,PLATEN 1680-0210-066	EA
0005	00001.000	0999725-0001	RETAINER, PAPER-PLATEN 1684-1725-049	EA
0006	00001.000	0994186-0002	SPACER,LOWER REAR .250 HOLE DIA 820PRNTR 1684-2186-048	EA
0007	00001.000	0999705-0001	ROD,GUIDE-LOWER 1684-1705-059	EA
0008	00001.000	0994490-0001	GUIDE ROD, UPPER 1680-0490-127	EA
0009	00001.000	0994197-0001	BUSHING,GUIDE ROD 1255-0074-022	EA
0010	00001.000	0999726-0001	LEVER, ADJUSTMENT- PRINTHEAD 1255-1011-012	EA
0011	00001.000	0999913-0001	CARRIAGE ASSY, PRINTHEAD 1221-1913-001	EA
0012	00001.000	0999727-0001	BUMPER,CARRIAGE-RIGHT 1255-1012-011	EA
0013	00001.000	0999727-0002	BUMPER,CARRIAGE-LEFT 1255-0051-024	EA
0014	00001.000	0994232-0001	SCALE,HEAD GAP 1255-0017-019	EA
0015	00001.000	0994194-0001	SUPPORT,IDLER PULLEY 1680-0194-195	EA
0016	00001.000	0994195-0001	SPACER,IDLER PULLEY 1680-0195-036	EA
0017	00001.000	0994241-0001	PULLEY ASSY,IDLER	EA
0018	00001.000	0994454-0001	SPRING,GROUNDING 1680-1454-020	EA
0019	00001.000	0994263-0001	SPRING,TENSION WIRE ROPE	EA
0020	00001.000	0999703-0001	CRADLE, MOTOR 1255-1006-017	EA
0021	00001.000	0994546-0001	MOTOR ASSY CARRIAGE DRIVE,10 CPI 1225-1546-106	EA
0021A			M3 1225-1546-106	
0022	00001.000	0994201-0001	STRAP,MOTOR 1680-0201-030	EA
0023	00001.000	0994202-0001	NUT,MOTOR STRAP 1680-0202-196	EA
0024	00001.000	0994233-0001	WIRE ROPE,DRIVE MECHANISM	EA
0025	00001.000	2220316-0001	TRACTOR,PAIR, .142" DIA PIN,4 TEETH IN SEE TI- DRAWING	PR
0027	00001.000	0994209-0001	ROD,TRACTOR SUPPORT 1680-0209-077	EA
0028	00001.000	0994172-0001	DRIVE SHAFT,TRACTOR 1680-0072-047	EA
0029	00001.000	0999780-0001	GEAR ASSY, PAPER ADVANCE 1221-1780-001	EA
0030	00001.000	0994173-0001	HUB,PAPER ADVANCE 1255-0001-021	EA
0031	00001.000	0994302-0001	SPRING,COMPRESSION-PAPER DRIVE SHAFT	EA
0032	00002.000	0999729-0001	BEARING, PAPER ADVANCE 1255-1014-017	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION.............................
2206573-0001	AD	MECHANISM, 10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0033	00001.000	0999829-0001	MOTOR ASSEMBLY, PAPER DRIVE 1221-1829-072	EA
0033A			M1 1221-1829-072	
0034	00002.000	0999731-0001	HOUSING,RIBBON GUIDE-SIDE PLATE 1255-1015-017	EA
0035	00001.000	0999704-0001	CLAMP, WIRE ROPE 1684-1704-018	EA
0036	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0037	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0038	00001.000	0999698-0001	NOSEGUIDE, PRINTHEAD 1255-1003-018	EA
0039	00001.000	2208260-0001	RIBBON DRIVE ASSEMBLY, 82X 1221-1260-302	
0041	00001.000	0999735-0001	CABLE ASSY, PAPER OUT 1221-1735-054	EA
0042	00001.000	0999736-0001	CABLE ASSY, CARRIAGE DRIVE 1221-1736-051	EA
0044	00001.000	0996169-0001	SWITCH,SENSITIVE 1620- -000	EA
0044A			S99 1620- -000	
0045	00006.000	0999697-0001	ROLLER, RIBBON 1255-1002-019	EA
0047	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0048	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0049	00001.000	0999928-0001	GROUND STRAP, CARRIAGE MOTOR 1684-1928-021	EA
0051	00001.000	0416402-4031	RING,RETAINING,EXTERNAL "E"	EA
0052	00001.000	0411778-0005	RING,RETAINING,EXTERNAL BOWED WAL - 5139-31	EA
0053	00003.000	0418212-0040	STRAP,TIEDOWN,ADJUSTABLE,PLASTIC QPL - MS3367-4-9	EA
0054	00002.000	0972988-0018	SCREW 4-40 X .625 PAN HEAD CRES	EA
0056	00002.000	0972988-0028	SCREW 6-32 X .375 PAN HEAD CRES	EA
0059	00002.000	0972969-0006	SCREW #6-20 X 1/2 LG THD PL HEX WASHER	EA
0061	00009.000	2220775-0030	SCREW,TAPTITE,6-32X.375 HEX HD SEE TI- DWG	EA
0062	00004.000	0972684-0013	SCREW,THD FRMG,HEX-WSHR HD,6-32X.625LG	EA
0077	00002.000	0416622-0013	WASHER #6 FLAT QPL - AN960C6L	EA
0081	00001.000	0411104-0138	WASHER, LOCK-SPRING, HELICAL, #10 QPL - MS35338-138	EA
0090	00001.000	0416453-0024	NUT,#10 HEX SMALL PATTERN	EA
0091	AR	0232334-6050	LUBRICANT SILICONE GRS LT GR 2 OZ TUBE SEE TI- DRAWING	TU
0093	00001.000	0232208-3500	LABEL WIRE MARKER DATABS VINYL CLOTH 1286-2208-000	SH
0094	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION	EA
0095	00000.000	2210148-0003	PAPER TRACTOR, DATA, PAIR SEE TI- DRAWING	PR
0095A			MAY BE USED AS AN ALTERNATE SEE TI- DRAWING	

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
2206573-0001	AD	MECHANISM, 10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0095B			FOR ITEM 25 SEE TI- DRAWING	
0096	00000.000	0994238-0003	CARRIAGE DRIVE MOTOR ASSY-10 CPI (820) 1221-3238-000	EA
0096A			ITEM 96 CAN BE USED AS AN 1221-3238-000	
0096B			ALT. FOR ITEMS 21 & 97 1221-3238-000	
0097	00001.000	2207638-0001	CABLE ASSEMBLY, ENCODER 1221-1638-018	EA
0098	00000.000	0999732-0001	PRINTHEAD ASSEMBLY,30VOLT 1221-1732-904	EA
0098A			MAY BE USED AS ALTERNATE 1221-1732-904	
0098B			FOR ITEM 36 1221-1732-904	
0099	00001.000	2210005-0003	BUMPER,RUBBER, ADHESIVE, GRAY 055152-SJ-5003GRAY	EA
0102	00000.000	0996158-0003	TRACTOR,PAPER,PREC. PR RT & LF HAND 1225-6158-000	EA
0102A			*MAY BE USED AS AN ALTERNAT 1225-6158-000	
0102B			*FOR ITEM 25 1225-6158-000	
0103	00005.000	2210084-0033	SEMS, PAN HEAD, SLOTTED, 3/8 LONG SEE TI- DRAWING	EA
0104	00000.000	0999687-0001	RIBBON DRIVE 1221-1687-011	EA
0104A			MAY BE USED AS AN ALTERNATE 1221-1687-011	
0104B			FOR ITEM 39 1221-1687-011	
0105	00004.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0106	00001.000	2211692-0010	SEMS,6-32 X.375,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	0972988-0031	SCREW 6-32 X .625 PAN HEAD CRES	EA
0108	00002.000	2211691-0018	SEMS,6-19X.500,HEX HEAD,CONE WASHER SEE TI- DRAWING	EA
0109	00001.000	2210084-0014	SEMS,PNH, SLTD, EXT TOOTH 32UNC-2A,.375L	EA
0110	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0111	00001.000	2211978-0003	SCREW,SEMS,PAN HD.,CAMGRIP SELF-LOCK SEE TI- DRAWING	EA
0112	00004.000	2211967-0010	SCREW,CAP,SEMS,HEX-SOCKET HEAD,B.O. SEE TI- DRAWING	EA
0113	00000.000	2213940-0001	PRINTHEAD ASSY, 30 VOLT 1221-1940-000	EA
0113A			*MAY BE USED AS AN ALTERNAT 1221-1940-000	
0113B			*FOR ITEM 36 1221-1940-000	
0114	00001.000	0411104-0136	WASHER, LOCK-SPRING, HELICAL, #6 QPL - MS35338-136	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2206573-0002	AD	MECHANISM, 10 & 16.5 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0001	00001.000	0999715-0001	SIDE PLATE,DRIVE MECHANISM-RIGHT SIDE 1684-1715-020	EA
0002	00001.000	0999715-0002	SIDE PLATE,DRIVE MECHANISM-LEFT SIDE 1684-2715-021	EA
0003	00001.000	0999724-0001	PLATEN, 820 TERMINAL 1680-2724-500	EA
0004	00001.000	0994210-0001	PAPER GUIDE,PLATEN 1680-0210-066	EA
0005	00001.000	0999725-0001	RETAINER, PAPER-PLATEN 1684-1725-049	EA
0006	00001.000	0994186-0002	SPACER,LOWER REAR .250 HOLE DIA 820PRNTR 1684-2186-048	EA
0007	00001.000	0999705-0001	ROD,GUIDE-LOWER 1684-1705-059	EA
0008	00001.000	0994490-0001	GUIDE ROD, UPPER 1680-0490-127	EA
0009	00001.000	0994197-0001	BUSHING,GUIDE ROD 1255-0074-022	EA
0010	00001.000	0999726-0001	LEVER, ADJUSTMENT- PRINTHEAD 1255-1011-012	EA
0011	00001.000	0999913-0001	CARRIAGE ASSY, PRINTHEAD 1221-1913-001	EA
0012	00001.000	0999727-0001	BUMPER,CARRIAGE-RIGHT 1255-1012-011	EA
0013	00001.000	0999727-0002	BUMPER,CARRIAGE-LEFT 1255-0051-024	EA
0014	00001.000	0994232-0001	SCALE,HEAD GAP 1255-0017-019	EA
0015	00001.000	0994194-0001	SUPPORT,IDLER PULLEY 1680-0194-195	EA
0016	00001.000	0994195-0001	SPACER,IDLER PULLEY 1680-0195-036	EA
0017	00001.000	0994241-0001	PULLEY ASSY,IDLER	EA
0018	00001.000	0994454-0001	SPRING,GROUNDING 1680-1454-020	EA
0019	00001.000	0994263-0001	SPRING,TENSION WIRE ROPE	EA
0020	00001.000	0999703-0001	CRADLE, MOTOR 1255-1006-017	EA
0021	00001.000	0994546-0002	MOTOR ASSY CARRIAGE DRIVE,10/16.5 CPI 1225-2546-000	EA
0021A			M3 1225-2546-000	
0022	00001.000	0994201-0001	STRAP,MOTOR 1680-0201-030	EA
0023	00001.000	0994202-0001	NUT,MOTOR STRAP 1680-0202-196	EA
0024	00001.000	0994233-0001	WIRE ROPE,DRIVE MECHANISM	EA
0025	00001.000	2220316-0001	TRACTOR,PAIR, .142" DIA PIN,4 TEETH IN SEE TI- DRAWING	PR
0027	00001.000	0994209-0001	ROD,TRACTOR SUPPORT 1680-0209-077	EA
0028	00001.000	0994172-0001	DRIVE SHAFT,TRACTOR 1680-0072-047	EA
0029	00001.000	0999780-0001	GEAR ASSY, PAPER ADVANCE 1221-1780-001	EA
0030	00001.000	0994173-0001	HUB,PAPER ADVANCE 1255-0001-021	EA
0031	00001.000	0994302-0001	SPRING,COMPRESSION-PAPER DRIVE SHAFT	EA
0032	00002.000	0999729-0001	BEARING, PAPER ADVANCE 1255-1014-017	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2206573-0002	AD	MECHANISM, 10 & 16.5 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0033	00001.000	0999829-0001	MOTOR ASSEMBLY, PAPER DRIVE 1221-1829-072	EA
0033A			M1 1221-1829-072	
0034	00002.000	0999731-0001	HOUSING,RIBBON GUIDE-SIDE PLATE 1255-1015-017	EA
0035	00001.000	0999704-0001	CLAMP, WIRE ROPE 1684-1704-018	EA
0036	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0037	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0038	00001.000	0999698-0001	NOSEGUIDE, PRINTHEAD 1255-1003-018	EA
0039	00001.000	2208260-0001	RIBBON DRIVE ASSEMBLY, 82X 1221-1260-302	
0041	00001.000	0999735-0001	CABLE ASSY, PAPER OUT 1221-1735-054	EA
0042	00001.000	0999736-0001	CABLE ASSY, CARRIAGE DRIVE 1221-1736-051	EA
0044	00001.000	0996169-0001	SWITCH,SENSITIVE 1620- -000	EA
0044A			S99 1620- -000	
0045	00006.000	0999697-0001	ROLLER, RIBBON 1255-1002-019	EA
0047	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0048	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0049	00001.000	0999928-0001	GROUND STRAP, CARRIAGE MOTOR 1684-1928-021	EA
0051	00001.000	0416402-4031	RING,RETAINING,EXTERNAL "E"	EA
0052	00001.000	0411778-0005	RING,RETAINING,EXTERNAL BOWED WAL - 5139-31	EA
0053	00003.000	0418212-0040	STRAP,TIEDOWN,ADJUSTABLE,PLASTIC QPL - MS3367-4-9	EA
0054	00002.000	0972988-0018	SCREW 4-40 X .625 PAN HEAD CRES	EA
0056	00002.000	0972988-0028	SCREW 6-32 X .375 PAN HEAD CRES	EA
0059	00002.000	0972969-0006	SCREW #6-20 X 1/2 LG THD PL HEX WASHER	EA
0061	00009.000	2220775-0030	SCREW,TAPTITE,6-32X.375 HEX HD SEE TI- DWG	EA
0062	00004.000	0972684-0013	SCREW,THD FRMG,HEX-WSHR HD,6-32X.625LG	EA
0077	00002.000	0416622-0013	WASHER #6 FLAT QPL - AN960C6L	EA
0081	00001.000	0411104-0138	WASHER, LOCK-SPRING, HELICAL, #10 QPL - MS35338-138	EA
0090	00001.000	0416453-0024	NUT,#10 HEX SMALL PATTERN	EA
0091	AR	0232334-6050	LUBRICANT SILICONE GRS LT GR 2 OZ TUBE SEE TI- DRAWING	TU
0093	00001.000	0232208-3500	LABEL WIRE MARKER DATABS VINYL CLOTH 1286-2208-000	SH
0094	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION	EA
0095	00000.000	2210148-0003	PAPER TRACTOR, DATA, PAIR SEE TI- DRAWING	PR
0095A			MAY BE USED AS AN ALTERNATE SEE TI- DRAWING	

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
2206573-0002	AD	MECHANISM, 10 & 16.5 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0095B			FOR ITEM 25 SEE TI- DRAWING	
0096	00000.000	0994238-0004	CARRIAGE DR MOTOR ASSY 10&16.5CPI(820) 1221-4238-000	EA
0096A			ITEM 96 CAN BE USED AS AN 1221-4238-000	
0096B			ALT. FOR ITEMS 21 & 97 1221-4238-000	
0097	00001.000	2207638-0002	CABLE ASSEMBLY, ENCODER 1221-2638-024	EA
0098	00000.000	0999732-0001	PRINTHEAD ASSEMBLY,30VOLT 1221-1732-904	EA
0098A			MAY BE USED AS ALTERNATE 1221-1732-904	
0098B			FOR ITEM 36 1221-1732-904	
0099	00001.000	2210005-0003	BUMPER,RUBBER, ADHESIVE, GRAY 055152-SJ-5003GRAY	EA
0102	00000.000	0996158-0003	TRACTOR,PAPER,PREC. PR RT & LF HAND 1225-6158-000	EA
0102A			*MAY BE USED AS AN ALTERNAT 1225-6158-000	
0102B			*FOR ITEM 25 1225-6158-000	
0103	00005.000	2210084-0033	SEMS, PAN HEAD, SLOTTED, 3/8 LONG SEE TI- DRAWING	EA
0104	00000.000	0999687-0001	RIBBON DRIVE 1221-1687-011	EA
0104A			MAY BE USED AS AN ALTERNATE 1221-1687-011	
0104B			FOR ITEM 39 1221-1687-011	
0105	00004.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0106	00001.000	2211692-0010	SEMS,6-32 X.375,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	0972988-0031	SCREW 6-32 X .625 PAN HEAD CRES	EA
0108	00002.000	2211691-0018	SEMS,6-19X.500,HEX HEAD,CONE WASHER SEE TI- DRAWING	EA
0109	00001.000	2210084-0014	SEMS,PNH, SLTD, EXT TOOTH 32UNC-2A,.375L	EA
0110	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0111	00001.000	2211978-0003	SCREW,SEMS,PAN HD.,CAMGRIP SELF-LOCK SEE TI- DRAWING	EA
0112	00004.000	2211967-0010	SCREW,CAP,SEMS,HEX-SOCKET HEAD,B.O. SEE TI- DRAWING	EA
0113	00000.000	2213940-0001	PRINTHEAD ASSY, 30 VOLT 1221-1940-000	EA
0113A			*MAY BE USED AS AN ALTERNAT 1221-1940-000	
0113B			*FOR ITEM 36 1221-1940-000	
0114	00001.000	0411104-0136	WASHER, LOCK-SPRING, HELICAL, #6 QPL - MS35338-136	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2206573-0003	AD	MECHANISM,10 CPI W/O P/H

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0999715-0001	SIDE PLATE,DRIVE MECHANISM-RIGHT SIDE 1684-1715-020	EA
0002	00001.000	0999715-0002	SIDE PLATE,DRIVE MECHANISM-LEFT SIDE 1684-2715-021	EA
0003	00001.000	0999724-0001	PLATEN, 820 TERMINAL 1680-2724-500	EA
0004	00001.000	0994210-0001	PAPER GUIDE,PLATEN 1680-0210-066	EA
0005	00001.000	0999725-0001	RETAINER, PAPER-PLATEN 1684-1725-049	EA
0006	00001.000	0994186-0002	SPACER,LOWER REAR .250 HOLE DIA 820PRNTR 1684-2186-048	EA
0007	00001.000	0999705-0001	ROD,GUIDE-LOWER 1684-1705-059	EA
0008	00001.000	0994490-0001	GUIDE ROD, UPPER 1680-0490-127	EA
0009	00001.000	0994197-0001	BUSHING,GUIDE ROD 1255-0074-022	EA
0010	00001.000	0999726-0001	LEVER, ADJUSTMENT- PRINTHEAD 1255-1011-012	EA
0011	00001.000	0999913-0001	CARRIAGE ASSY, PRINTHEAD 1221-1913-001	EA
0012	00001.000	0999727-0001	BUMPER,CARRIAGE-RIGHT 1255-1012-011	EA
0013	00001.000	0999727-0002	BUMPER,CARRIAGE-LEFT 1255-0051-024	EA
0014	00001.000	0994232-0001	SCALE,HEAD GAP 1255-0017-019	EA
0015	00001.000	0994194-0001	SUPPORT,IDLER PULLEY 1680-0194-195	EA
0016	00001.000	0994195-0001	SPACER,IDLER PULLEY 1680-0195-036	EA
0017	00001.000	0994241-0001	PULLEY ASSY,IDLER	EA
0018	00001.000	0994454-0001	SPRING,GROUNDING 1680-1454-020	EA
0019	00001.000	0994263-0001	SPRING,TENSION WIRE ROPE	EA
0020	00001.000	0999703-0001	CRADLE, MOTOR 1255-1006-017	EA
0021	00001.000	0994546-0001	MOTOR ASSY CARRIAGE DRIVE,10 CPI 1225-1546-106	EA
0021A			M3 1225-1546-106	
0022	00001.000	0994201-0001	STRAP,MOTOR 1680-0201-030	EA
0023	00001.000	0994202-0001	NUT,MOTOR STRAP 1680-0202-196	EA
0024	00001.000	0994233-0001	WIRE ROPE,DRIVE MECHANISM	EA
0025	00001.000	2220316-0001	TRACTOR,PAIR, .142" DIA PIN,4 TEETH IN SEE TI- DRAWING	PR
0027	00001.000	0994209-0001	ROD,TRACTOR SUPPORT 1680-0209-077	EA
0028	00001.000	0994172-0001	DRIVE SHAFT,TRACTOR 1680-0072-047	EA
0029	00001.000	0999780-0001	GEAR ASSY, PAPER ADVANCE 1221-1780-001	EA
0030	00001.000	0994173-0001	HUB,PAPER ADVANCE 1255-0001-021	EA
0031	00001.000	0994302-0001	SPRING,COMPRESSION-PAPER DRIVE SHAFT	EA
0032	00002.000	0999729-0001	BEARING, PAPER ADVANCE 1255-1014-017	EA

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
2206573-0003    AD        MECHANISM,10 CPI W/O P/H

ITEM.     QUANTITY.    COMPONENT..    DESCRIPTION........................... UM

0033      00001.000    0999829-0001    MOTOR ASSEMBLY, PAPER DRIVE                 EA
                                       1221-1829-072
0033A                                  M1
                                       1221-1829-072
0034      00002.000    0999731-0001    HOUSING,RIBBON GUIDE-SIDE PLATE             EA
                                       1255-1015-017
0035      00001.000    0999704-0001    CLAMP, WIRE ROPE                            EA
                                       1684-1704-018
0038      00001.000    0999698-0001    NOSEGUIDE, PRINTHEAD                        EA
                                       1255-1003-018
0039      00001.000    2208260-0001    RIBBON DRIVE ASSEMBLY, 82X
                                       1221-1260-302
0041      00001.000    0999735-0001    CABLE ASSY, PAPER OUT                       EA
                                       1221-1735-054
0042      00001.000    0999736-0001    CABLE ASSY, CARRIAGE DRIVE                  EA
                                       1221-1736-051
0044      00001.000    0996169-0001    SWITCH,SENSITIVE                            EA
                                       1620-     -000
0044A                                  S99
                                       1620-     -000
0045      00006.000    0999697-0001    ROLLER, RIBBON                              EA
                                       1255-1002-019
0049      00001.000    0999928-0001    GROUND STRAP, CARRIAGE MOTOR                EA
                                       1684-1928-021
0051      00001.000    0416402-4031    RING,RETAINING,EXTERNAL "E"                 EA

0052      00001.000    0411778-0005    RING,RETAINING,EXTERNAL BOWED               EA
                                       WAL    - 5139-31
0053      00003.000    0418212-0040    STRAP,TIEDOWN,ADJUSTABLE,PLASTIC            EA
                                       QPL    - MS3367-4-9
0054      00002.000    0972988-0018    SCREW 4-40 X .625 PAN HEAD CRES             EA

0056      00002.000    0972988-0028    SCREW 6-32 X .375 PAN HEAD CRES             EA

0059      00002.000    0972969-0006    SCREW #6-20 X 1/2 LG THD PL HEX WASHER      EA

0061      00009.000    2220775-0030    SCREW,TAPTITE,6-32X.375 HEX HD              EA
                                       SEE TI- DWG
0062      00004.000    0972684-0013    SCREW,THD FRMG,HEX-WSHR HD,6-32X.625LG      EA

0077      00002.000    0416622-0013    WASHER #6 FLAT                              EA
                                       QPL    - AN960C6L
0081      00001.000    0411104-0138    WASHER, LOCK-SPRING, HELICAL, #10           EA
                                       QPL    - MS35338-138
0090      00001.000    0416453-0024    NUT,#10 HEX SMALL PATTERN                   EA

0091         AR        0232334-6050    LUBRICANT SILICONE GRS LT GR 2 OZ TUBE      TU
                                       SEE TI- DRAWING
0093      00001.000    0232208-3500    LABEL WIRE MARKER DATABS VINYL CLOTH        SH
                                       1286-2208-000
0094        REF        0994396-9901    PROCEDURE,SITE & DATE CODE SERIALIZATION    EA

0095      00000.000    2210148-0003    PAPER TRACTOR, DATA, PAIR                   PR
                                       SEE TI- DRAWING
0095A                                  MAY BE USED AS AN ALTERNATE
                                       SEE TI- DRAWING
0095B                                  FOR ITEM 25
                                       SEE TI- DRAWING
0096      00000.000    0994238-0003    CARRIAGE DRIVE MOTOR ASSY-10 CPI (820)      EA
                                       1221-3238-000
0096A                                  ITEM 96 CAN BE USED AS AN
                                       1221-3238-000
0096B                                  ALT. FOR ITEMS 21 & 97
                                       1221-3238-000
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LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2206573-0003	AD	MECHANISM,10 CPI W/O P/H

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0097	00001.000	2207638-0001	CABLE ASSEMBLY, ENCODER 1221-1638-018	EA
0099	00001.000	2210005-0003	BUMPER,RUBBER, ADHESIVE, GRAY 055152-SJ-5003GRAY	EA
0102	00000.000	0996158-0003	TRACTOR,PAPER,PREC. PR RT & LF HAND 1225-6158-000	EA
0102A			*MAY BE USED AS AN ALTERNAT 1225-6158-000	
0102B			*FOR ITEM 25 1225-6158-000	
0103	00005.000	2210084-0033	SEMS, PAN HEAD, SLOTTED, 3/8 LONG SEE TI- DRAWING	EA
0104	00000.000	0999687-0001	RIBBON DRIVE 1221-1687-011	EA
0104A			MAY BE USED AS AN ALTERNATE 1221-1687-011	
0104B			FOR ITEM 39 1221-1687-011	
0105	00004.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0106	00001.000	2211692-0010	SEMS,6-32 X.375,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	0972988-0031	SCREW 6-32 X .625 PAN HEAD CRES	EA
0108	00002.000	2211691-0018	SEMS,6-19X.500,HEX HEAD,CONE WASHER SEE TI- DRAWING	EA
0109	00001.000	2210084-0014	SEMS,PNH, SLTD, EXT TOOTH 32UNC-2A,.375L	EA
0110	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0111	00001.000	2211978-0003	SCREW,SEMS,PAN HD.,CAMGRIP SELF-LOCK SEE TI- DRAWING	EA
0112	00004.000	2211967-0010	SCREW,CAP,SEMS,HEX-SOCKET HEAD,B.O. SEE TI- DRAWING	EA
0114	00001.000	0411104-0136	WASHER, LOCK-SPRING, HELICAL, #6 QPL - MS35338-136	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2206573-0004	AD	MECHANISM,10 & 16.5 CPI W/O P/H

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0999715-0001	SIDE PLATE,DRIVE MECHANISM-RIGHT SIDE 1684-1715-020	EA
0002	00001.000	0999715-0002	SIDE PLATE,DRIVE MECHANISM-LEFT SIDE 1684-2715-021	EA
0003	00001.000	0999724-0001	PLATEN, 820 TERMINAL 1680-2724-500	EA
0004	00001.000	0994210-0001	PAPER GUIDE,PLATEN 1680-0210-066	EA
0005	00001.000	0999725-0001	RETAINER, PAPER-PLATEN 1684-1725-049	EA
0006	00001.000	0994186-0002	SPACER,LOWER REAR .250 HOLE DIA 820PRNTR 1684-2186-048	EA
0007	00001.000	0999705-0001	ROD,GUIDE-LOWER 1684-1705-059	EA
0008	00001.000	0994490-0001	GUIDE ROD, UPPER 1680-0490-127	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
2206573-0004	AD	MECHANISM,10 & 16.5 CPI W/O P/H

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0009	00001.000	0994197-0001	BUSHING,GUIDE ROD 1255-0074-022	EA
0010	00001.000	0999726-0001	LEVER, ADJUSTMENT- PRINTHEAD 1255-1011-012	EA
0011	00001.000	0999913-0001	CARRIAGE ASSY, PRINTHEAD 1221-1913-001	EA
0012	00001.000	0999727-0001	BUMPER,CARRIAGE-RIGHT 1255-1012-011	EA
0013	00001.000	0999727-0002	BUMPER,CARRIAGE-LEFT 1255-0051-024	EA
0014	00001.000	0994232-0001	SCALE,HEAD GAP 1255-0017-019	EA
0015	00001.000	0994194-0001	SUPPORT,IDLER PULLEY 1680-0194-195	EA
0016	00001.000	0994195-0001	SPACER,IDLER PULLEY 1680-0195-036	EA
0017	00001.000	0994241-0001	PULLEY ASSY,IDLER	EA
0018	00001.000	0994454-0001	SPRING,GROUNDING 1680-1454-020	EA
0019	00001.000	0994263-0001	SPRING,TENSION WIRE ROPE	EA
0020	00001.000	0999703-0001	CRADLE, MOTOR 1255-1006-017	EA
0021	00001.000	0994546-0002	MOTOR ASSY CARRIAGE DRIVE,10/16.5 CPI 1225-2546-000	EA
0021A			M3 1221-4238-000	
0022	00001.000	0994201-0001	STRAP,MOTOR 1680-0201-030	EA
0023	00001.000	0994202-0001	NUT,MOTOR STRAP 1680-0202-196	EA
0024	00001.000	0994233-0001	WIRE ROPE,DRIVE MECHANISM	EA
0025	00001.000	2220316-0001	TRACTOR,PAIR, .142" DIA PIN,4 TEETH IN SEE TI- DRAWING	PR
0027	00001.000	0994209-0001	ROD,TRACTOR SUPPORT 1680-0209-077	EA
0028	00001.000	0994172-0001	DRIVE SHAFT,TRACTOR 1680-0072-047	EA
0029	00001.000	0999780-0001	GEAR ASSY, PAPER ADVANCE 1221-1780-001	EA
0030	00001.000	0994173-0001	HUB,PAPER ADVANCE 1255-0001-021	EA
0031	00001.000	0994302-0001	SPRING,COMPRESSION-PAPER DRIVE SHAFT	EA
0032	00002.000	0999729-0001	BEARING, PAPER ADVANCE 1255-1014-017	EA
0033	00001.000	0999829-0001	MOTOR ASSEMBLY, PAPER DRIVE 1221-1829-072	EA
0033A			M1 1221-1829-072	
0034	00002.000	0999731-0001	HOUSING,RIBBON GUIDE-SIDE PLATE 1255-1015-017	EA
0035	00001.000	0999704-0001	CLAMP, WIRE ROPE 1684-1704-018	EA
0038	00001.000	0999698-0001	NOSEGUIDE, PRINTHEAD 1255-1003-018	EA
0039	00001.000	2208260-0001	RIBBON DRIVE ASSEMBLY, 82X 1221-1260-302	
0041	00001.000	0999735-0001	CABLE ASSY, PAPER OUT 1221-1735-054	EA
0042	00001.000	0999736-0001	CABLE ASSY, CARRIAGE DRIVE 1221-1736-051	EA

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
2206573-0004	AD	MECHANISM,10 & 16.5 CPI W/O P/H

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION................................	UM
0044	00001.000	0996169-0001	SWITCH,SENSITIVE 1620- -000	EA
0044A			S99 1620- -000	
0045	00006.000	0999697-0001	ROLLER, RIBBON 1255-1002-019	EA
0049	00001.000	0999928-0001	GROUND STRAP, CARRIAGE MOTOR 1684-1928-021	EA
0051	00001.000	0416402-4031	RING,RETAINING,EXTERNAL "E"	EA
0052	00001.000	0411778-0005	RING,RETAINING,EXTERNAL BOWED WAL - 5139-31	EA
0053	00003.000	0418212-0040	STRAP,TIEDOWN,ADJUSTABLE,PLASTIC QPL - MS3367-4-9	EA
0054	00002.000	0972988-0018	SCREW 4-40 X .625 PAN HEAD CRES	EA
0056	00002.000	0972988-0028	SCREW 6-32 X .375 PAN HEAD CRES	EA
0059	00002.000	0972969-0006	SCREW #6-20 X 1/2 LG THD PL HEX WASHER	EA
0061	00009.000	2220775-0030	SCREW,TAPTITE,6-32X.375 HEX HD SEE TI- DWG	EA
0062	00004.000	0972684-0013	SCREW,THD FRMG,HEX-WSHR HD,6-32X.625LG	EA
0077	00002.000	0416622-0013	WASHER #6 FLAT QPL - AN960C6L	EA
0081	00001.000	0411104-0138	WASHER, LOCK-SPRING, HELICAL, #10 QPL - MS35338-138	EA
0090	00001.000	0416453-0024	NUT,#10 HEX SMALL PATTERN	EA
0091	AR	0232334-6050	LUBRICANT SILICONE GRS LT GR 2 OZ TUBE SEE TI- DRAWING	TU
0093	00001.000	0232208-3500	LABEL WIRE MARKER DATABS VINYL CLOTH 1286-2208-000	SH
0094	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION	EA
0095	00000.000	2210148-0003	PAPER TRACTOR, DATA, PAIR SEE TI- DRAWING	PR
0095A			MAY BE USED AS AN ALTERNATE SEE TI- DRAWING	
0095B			FOR ITEM 25 SEE TI- DRAWING	
0096	00000.000	0994238-0004	CARRIAGE DR MOTOR ASSY 10&16.5CPI(82C) 1221-4238-000	EA
0096A			ITEM 96 CAN BE USED AS AN 1221-4238-000	
0096B			ALT. FOR ITEMS 21 & 97 1221-4233-000	
0097	00001.000	2207638-0002	CABLE ASSEMBLY, ENCODER 1221-2633-024	EA
0099	00001.000	2210005-0003	BUMPER,RUBBER, ADHESIVE, GRAY 055152-SJ-5003GRAY	EA
0102	00000.000	0996158-0003	TRACTOR,PAPER,PREC. PR RT & LF HAND 1225-6158-000	EA
0102A			*MAY BE USED AS AN ALTERNAT 1225-6158-000	
0102B			*FOR ITEM 25 1225-6158-000	
0103	00005.000	2210084-0033	SEMS, PAN HEAD, SLOTTED, 3/8 LONG SEE TI- DRAWING	EA
0104	00000.000	0999687-0001	RIBBON DRIVE 1221-1687-011	EA
0104A			MAY BE USED AS AN ALTERNATE 1221-1687-011	

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
2206573-0004	AD	MECHANISM,10 & 16.5 CPI W/O P/H

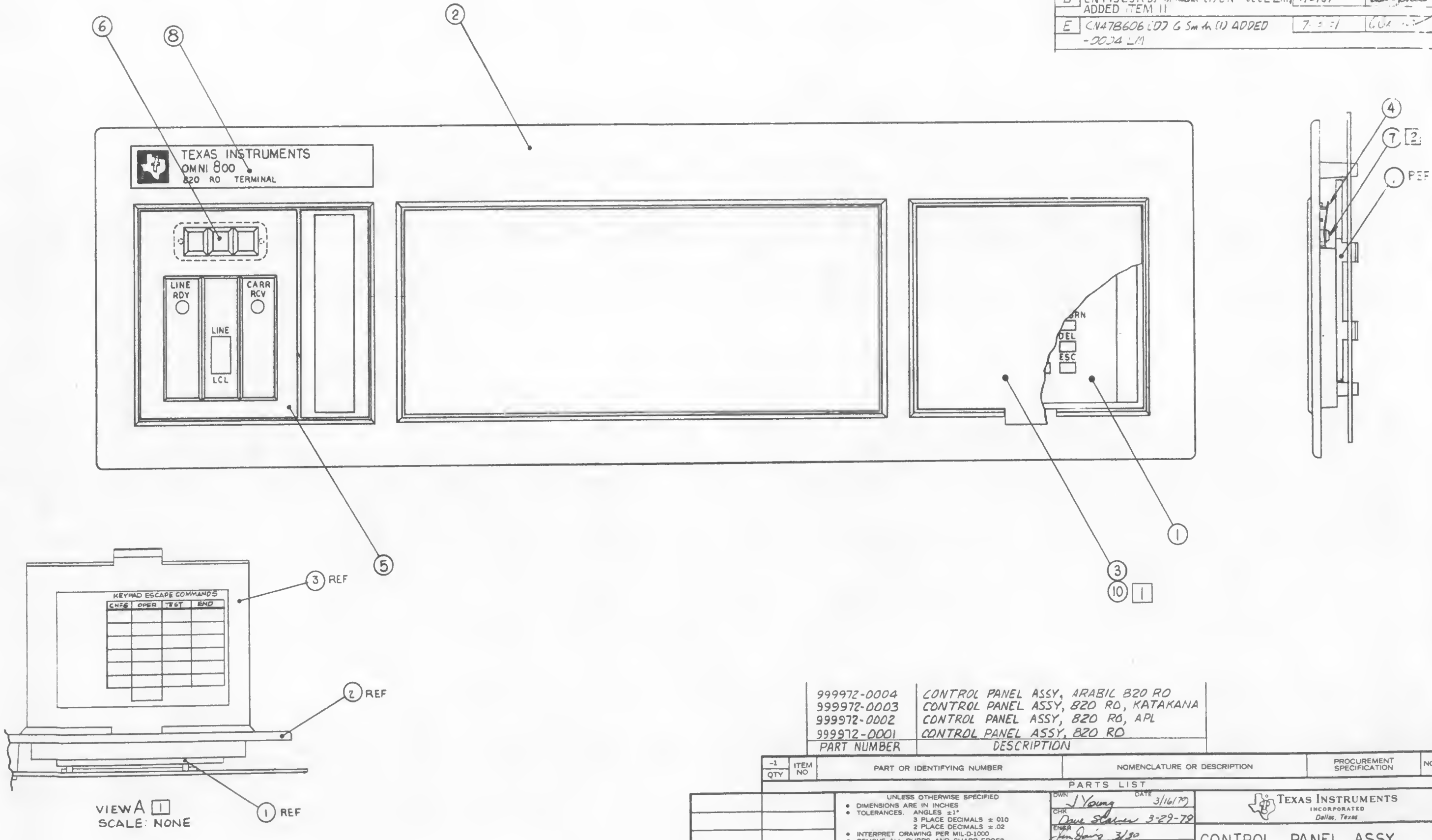
ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0104B			FOR ITEM 39 1221-1687-011	
0105	00004.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0106	00001.000	2211692-0010	SEMS,6-32 X.375,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	0972988-0031	SCREW 6-32 X .625 PAN HEAD CRES	EA
0108	00002.000	2211691-0018	SEMS,6-19X.500,HEX HEAD,CONE WASHER SEE TI- DRAWING	EA
0109	00001.000	2210084-0014	SEMS,PNH, SLTD, EXT TOOTH 32UNC-2A,.375L	EA
0110	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0111	00001.000	2211978-0003	SCREW,SEMS,PAN HD.,CAMGRIP SELF-LOCK SEE TI- DRAWING	EA
0112	00004.000	2211967-0010	SCREW,CAP,SEMS,HEX-SOCKET HEAD,B.O. SEE TI- DRAWING	EA
0114	00001.000	0411104-0136	WASHER, LOCK-SPRING, HELICAL, #6 QPL - MS35338-136	EA
9999	00000.000	0239999-9999	COST, SHRINKAGE	EA

DWG NO 999972 SH

REV	DESCRIPTION	DATE	APPROVED
A	CN433439 Z. PALMER 1) ADDED IT. 10 TO L/M; 2) ZONE B-2, ADDED IT. 1 CALLOUT; 3) ZONE C-1, ADDED IT. 1 PICTORIAL; 4) ADDED NOTE 1; 5) ADDED VIEW A IN ZONE A-7	9/26/79	
B	CN 435681 REKHA SETH 1) ITEM 7 P/N WAS 972988-13, DELE ITEM 9 P/N WAS 972988-13 ADDED NOTE 2.	10-22-79	
C	CN460005(D) S Dolan (1) ADDED -0002 AND -0003	1-16-80	S Dolan
D	CN445637(D) (1) ON -0002 LM, ADDED ITEM 11	3/2/81	
E	CN478606 (D) G Smith (1) ADDED -0004 LM	7 [illegible]	

NOTES: UNLESS OTHERWISE SPECIFIED:

1. STICK KEYPAD LABEL (ITEM 10) ON THE BOTTOM SURFACE OF THE DOOR BEZEL (ITEM 3) SUCH THAT THE ORIENTATION OF THE KEYPAD LABEL IS AS SHOWN ON VIEW A (A-7) WHEN DOOR BEZEL IS OPEN
2. TIGHTEN ITEM 7 TO 32 IN OZ ± 8 IN OZ



PART NUMBER	DESCRIPTION
999972-0004	CONTROL PANEL ASSY, ARABIC 820 RO
999972-0003	CONTROL PANEL ASSY, 820 RO, KATAKANA
999972-0002	CONTROL PANEL ASSY, 820 RO, APL
999972-0001	CONTROL PANEL ASSY, 820 RO

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999980	8740
999979	8740
999975	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES. ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

DWN	J Young	DATE 3/16/79
CHK	Dave Stalnes	3-29-79
ENGR	Jim Davis	3/30
APVD	J. Davis	3/30
QA	[illegible]	[illegible]/79
CONTR	[illegible]	3-30-79
RLSE	[illegible]	3/30/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CONTROL PANEL ASSY.
820 RO

SIZE D | FSCM NO 96214 | DRAWING NO 999972
SCALE 1/1 | SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-7616H

8 7 6 5 4 3 2 1

D C B A

4 30

LM

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION
0999972-0001	E	CONTROL PANEL ASSY-FULL ASCII 820RO

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0001	00001.000	0999953-0101	KYBD,825/820 RO ASCII 1221-1953-064	EA
0002	00001.000	0999963-0001	BEZEL,KEYBOARD,820 RO 1255-1045-017	EA
0003	00001.000	0999967-0001	DOOR BEZEL,820 RO 1255-1051-011	EA
0004	00002.000	0999968-0001	SPRING,LEAF,BEZEL DOOR 1684-1968-029	EA
0005	00001.000	0999966-0001	PLATE,BEZEL,820 RO 1255-1049-010	EA
0006	00001.000	0999733-0001	FILTER, KEYBOARD PLATE 1255-1016-009	EA
0007	00002.000	0996010-0001	SCREW #4-24 X 1/4 PAN HEAD ----------000	EA
0008	00001.000	0999977-0001	NAMEPLATE, 820 RO	EA
0010	00001.000	2207633-0001	LABEL,KEYPAD ESCAPE COMMANDS 1221-1633-000	EA

02/05/83

PART NUMBER	REV	DESCRIPTION
0999972-0002	E	CONTROL PANEL ASSY-APL/ASCII 820RO

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION	UM
0001	00001.000	0999953-0201	KYBD,825/820 RO ASCII 1221-2953-000	EA
0002	00001.000	0999963-0001	BEZEL,KEYBOARD,820 RO 1255-1045-017	EA
0003	00001.000	0999967-0001	DOOR BEZEL,820 RO 1255-1051-011	EA
0004	00002.000	0999968-0001	SPRING,LEAF,BEZEL DOOR 1684-1968-029	EA
0005	00001.000	0999966-0001	PLATE,BEZEL,820 RO 1255-1049-010	EA
0006	00001.000	0999733-0001	FILTER, KEYBOARD PLATE 1255-1016-009	EA
0007	00002.000	0996010-0001	SCREW #4-24 X 1/4 PAN HEAD ----------000	EA
0008	00001.000	0999977-0001	NAMEPLATE, 820 RO	EA
0010	00001.000	2207633-0001	LABEL,KEYPAD ESCAPE COMMANDS 1221-1633-000	EA
0011	00001.000	0996750-0001	IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD 1221-6750-000	EA
0011A			U11 ON TERMINAL ELEC. ASSY. 1221-6750-000	

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999972-0003    E         CONTROL PANEL ASSY,820 RO,KATAKANA

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0001     00001.000   0999953-0201    KYBD,825/820 RO ASCII                     EA
                                     1221-2953-000
0002     00001.000   0999963-0001    BEZEL,KEYBOARD,820 RO                     EA
                                     1255-1045-017
0003     00001.000   0999967-0001    DOOR BEZEL,820 RO                         EA
                                     1255-1051-011
0004     00002.000   0999968-0001    SPRING,LEAF,BEZEL DOOR                    EA
                                     1684-1968-029
0005     00001.000   0999966-0001    PLATE,BEZEL,820 RO                        EA
                                     1255-1049-010
0006     00001.000   0999733-0001    FILTER, KEYBOARD PLATE                    EA
                                     1255-1016-009
0007     00002.000   0996010-0001    SCREW #4-24 X 1/4 PAN HEAD                EA
                                     ----------000
0008     00001.000   0999977-0001    NAMEPLATE, 820 RO                         EA

0010     00001.000   2207633-0001    LABEL,KEYPAD ESCAPE COMMANDS              EA
                                     1221-1633-000
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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999972-0004    E         CONTROL PANEL ASSY,ARABIC 820RO

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0001     00001.000   0999953-0201    KYBD,825/820 RO ASCII                     EA
                                     1221-2953-000
0002     00001.000   0999963-0001    BEZEL,KEYBOARD,820 RO                     EA
                                     1255-1045-017
0003     00001.000   0999967-0001    DOOR BEZEL,820 RO                         EA
                                     1255-1051-011
0004     00002.000   0999968-0001    SPRING,LEAF,BEZEL DOOR                    EA
                                     1684-1968-029
0005     00001.000   0999966-0001    PLATE,BEZEL,820 RO                        EA
                                     1255-1049-010
0006     00001.000   0999733-0001    FILTER, KEYBOARD PLATE                    EA
                                     1255-1016-009
0007     00002.000   0996010-0001    SCREW #4-24 X 1/4 PAN HEAD                EA
                                     ----------000
0008     00001.000   0999977-0001    NAMEPLATE, 820 RO                         EA

0010     00001.000   2207633-0001    LABEL,KEYPAD ESCAPE COMMANDS              EA
                                     1221-1633-000
0011     00001.000   2361123-0001    CHARACTER GENERATOR USASCII/ARABIC        EA
                                     1221-    -000
0011A                                INSTALL IN U11 ON TERMNIAL
                                     1221-    -000
0011B                                ELECTRONICS PWB
                                     1221-    -000
```

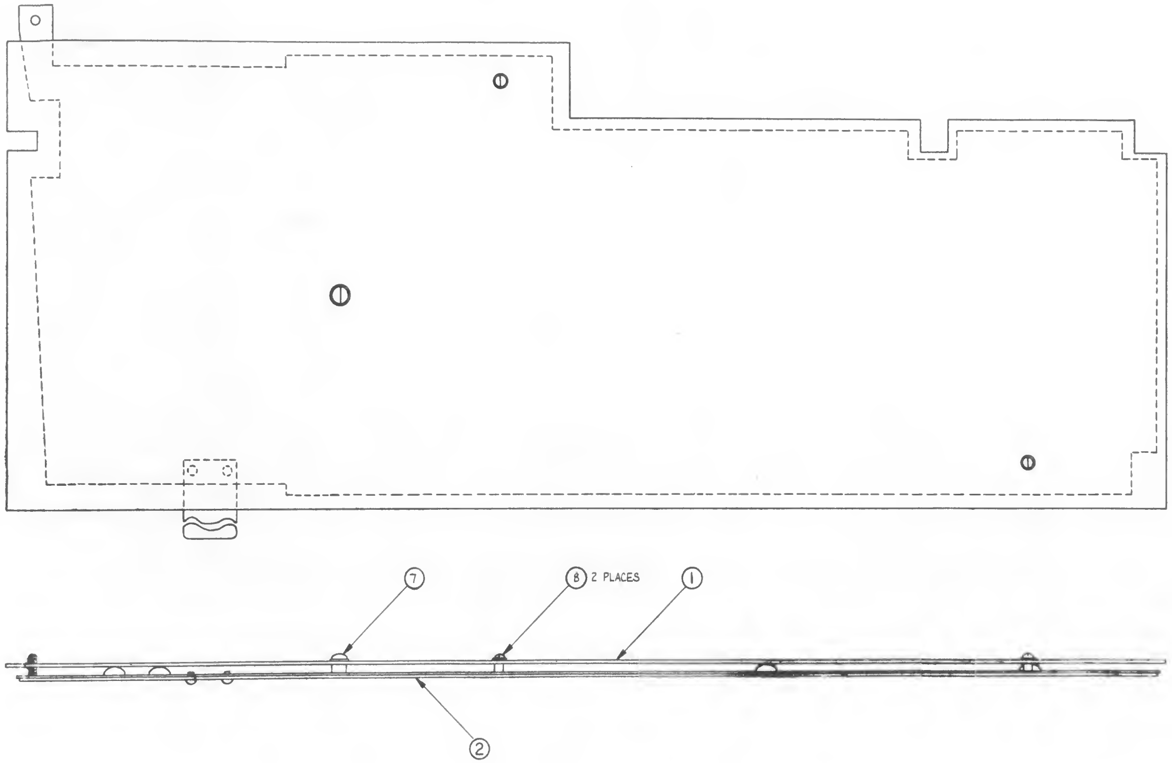
DWG NO 999974 SH

1 I 5

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 433427 C Davis ADDED -0401 LM.	6-19-79	D. Stefan
B	CN460010(D) S Dodson (1) ADDED -801	1-16-80	S Dodson
C	CN472325 (D) M Kuehn (1) ON ALL LM'S DELETED ITEMS 3,4,5,6 (2) ON ALL LM'S ADDED ITEMS 7 AND 8	3/2/81	
D	CN479188 (D) D. Howard (1) ON -0101 LM: IT. 1 PN FROM 999947 TO 2208265. (2) ON -0201 LM: IT. 1 PN FROM 999947 TO 2208265. (3) ON -0401 LM: IT. 1 PN FROM 999947 TO 2208265. (4) ON -0801 LM: IT. 1 PN FROM 999947-0801 TO 2208265-0111.	10-28-81	M Kuehn
E	CN4868611(C) M Kuehn (1) ADDED ITEM 9 TO ALL LM'S	1-4-82	M Kuehn

22

NOTES: UNLESS OTHERWISE SPECIFIED:



999974-0801	TERMINAL ELECTRONICS W/GND PLANE-115V, KATAKANA	
999974-0401	TERM ELECTRONICS W/GND PLANE (230V-BPO)	BRITISH POST OFFICE
999974-0201	TERM ELECTRONICS W/GND PLANE (230V)	EUROPEAN
999974-0101	TERM ELECTRONICS W/GND PLANE (115V)	DOMESTIC
PART NO.	DESCRIPTION	REMARKS

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999690	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

		DATE
DWN	R Young	3/23/79
CHK	Dave Stassel	5-1-79
ENGR	Walt Russell	5-1-79
APVD	Jim Davis	5/1/79
QA	C Brackford	5/1/79
CONTR	Lynn Baird	5/1/79
RLSE	Louis Villa	5/4/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

TERMINAL ELECTRONICS
WITH GND PLANE

SIZE	FSCM NO	DRAWING NO	
D	96214	999974	FILMED
SCALE 1/1		SHEET	

LM 1

30

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS. SEE TI DRAWING 729467

TI-7814H

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999974-0101    E         TERMINAL ELECTRONICS W/GND PLANE-115V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   2208265-0101   TERMINAL ELECTRONICS, 820 - 115 VAC, DOM  EA
                                     1221-0039-030
0002      00001.000   0999872-0001   GROUND PLANE ASSY                         EA
                                     1684-1872-015
0007      00001.000   2210084-0022   SEMS SCREW, 8-32X1/4 EXT. TOOTH           EA
                                     SEE TI- DRAWING
0008      00002.000   2210084-0002   SEMS SCREW, 4-40X1/4 EXT. TOOTH           EA
                                     1221-2134-000
0009      00000.000   0999947-0101   TERMINAL ELECTRONICS, 115 V               EA
                                     1221-1947-030
0009A                                ALTERNATE FOR ITEM 1
                                     1221-1947-030
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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999974-0201    E         TERMINAL ELECTRONICS W/GND PLANE-230V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   2208265-0201   TERMINAL ELECTRONICS, 820 - 220 VAC       EA
                                     1221-0038-001
0002      00001.000   0999872-0001   GROUND PLANE ASSY                         EA
                                     1684-1872-015
0007      00001.000   2210084-0022   SEMS SCREW, 8-32X1/4 EXT. TOOTH           EA
                                     SEE TI- DRAWING
0008      00002.000   2210084-0002   SEMS SCREW, 4-40X1/4 EXT. TOOTH           EA
                                     1221-2134-000
0009      00000.000   0999947-0201   TERMINAL ELECTRONICS, 230 V               EA
                                     1221-2947-000
0009A                                ALTERNATE FOR ITEM 1
                                     1221-2947-000
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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999974-0401    E         TERM ELECTRONICS W/GND PLANE-230V BPO

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   2208265-0401   TERMINAL ELECTRONICS, 820 - 220 VAC, BPO  EA
                                     1221-0037-000
0002      00001.000   0999872-0001   GROUND PLANE ASSY                         EA
                                     1684-1872-015
0007      00001.000   2210084-0022   SEMS SCREW, 8-32X1/4 EXT. TOOTH           EA
                                     SEE TI- DRAWING
0008      00002.000   2210084-0002   SEMS SCREW, 4-40X1/4 EXT. TOOTH           EA
                                     1221-2134-000
0009      00000.000   0999947-0401   TERM ELECTRONICS, 230V (BPO)              EA
                                     1221-4947-000
0009A                                ALTERNATE FOR ITEM 1
                                     1221-4947-000
```

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV       DESCRIPTION............................
0999974-0801    E        TERM ELEC W/GND PLANE-115V,KATAKANA

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   2208265-0111   TERMINAL ELECT, 820 - 115 VAC, KATA KANA  EA
                                     1221-0035-000
0002      00001.000   0999872-0001   GROUND PLANE ASSY                         EA
                                     1684-1872-015
0007      00001.000   2210084-0022   SEMS SCREW, 8-32X1/4 EXT. TOOTH           EA
                                     SEE TI- DRAWING
0008      00002.000   2210084-0002   SEMS SCREW, 4-40X1/4 EXT. TOOTH           EA
                                     1221-2134-000
0009      00000.000   0999947-0801   TERMINAL ELECTRONICS, 115V KATAKANA       EA
                                     1221-    -000
0009A                                ALTERNATE FOR ITEM 1
                                     1221-    -000
```

NOTES: UNLESS OTHERWISE SPECIFIED:

1. MOUNT DISC (ITEM 209) CONCENTRICALLY TO SUPPORT (ITEM 178) USING SILICONE RTV (ITEM 200)

2. MARK SITE/DATE CODE ON ASSEMBLY IN POSITION INDICATED PER 994396 (ITEM 235), PARAGRAPH 4.0 AND PROCESS 1

3. MARK APPROPRIATE DASH NUMBER AND REVISION LETTER PER PROCESS 1

4. INSTALL SELF-CLINCHING STUDS (ITEM 206) BEFORE PROCESS 2

5. ~~R124 IS TO BE SELECTED TO A TOLERANCE OF +.5% -.2% AND MARKED WITH A YELLOW DOT~~

6. ▨ INDICATES COMPONENTS NOT USED

7. ORIENT BOTH CONNECTORS (ITEM 185) USING VENDOR IDENTIFICATION MOLDED INTO PART AND POSITION AS SHOWN

8. ITEM 190 MAY BE SUBSTITUTED FOR ITEM 189 FOR REWORK NEED ONLY

9. INSTALL TEST JUMPER PLUGS (ITEM 192) AFTER ASSEMBLY FINAL TEST (E3 & E4)(E5 & E6)(E15 & E16)(E205 & E206)(E207 & E208)(E209 & E210)(E211 & E212)(E213 & E214)(E215 & E216)(E219 & E220)(E234 & E235)(E262 & E263)(E264 & E265)

10. ~~INSTALL TEST SOCKET (ITEM 173) FROM CONDUCTOR SIDE OF BOARD~~

11. SEE VIEW L SH 6 (C-2) FOR ALL SINGLE TRANSISTOR TO HEATSINK HARDWARE STACK DETAIL, AND VIEW M SH 6 (A2) FOR DOUBLE TRANSISTOR TO HEATSINK HARDWARE STACK DETAIL.

12. TORQUE TO BE 3.5 ± .5 IN-LBS

13. ~~APPLY THERMAL COMPOUND (ITEM 202) BETWEEN NETWORKS (ITEM 13) AND HEATSINK (ITEM 198) (3 PLACES) AFTER PROCESS 2 AND RETORQUE HARDWARE~~

14. RESISTOR (ITEM 118) OMITTED FROM PLAN VIEW FOR CLARITY

15. SECURE TOROID (ITEM 74) AND COMPLETE ELECTRICAL CONNECTIONS USING BUS WIRE (ITEM 224) BETWEEN TERMINALS E250 TO E251, E252 TO E253, E254 TO E255, E256 TO E257, E258 TO E259 AND E260 TO E261

16. FOR 115 VOLT ASSEMBLY (-101) INSTALL THERMISTORS (ITEM 183) IN LOCATIONS R272 AND R273. FOR 230 VOLT ASSEMBLY (-201, -401) INSTALL THERMISTORS (ITEM 183) IN LOCATIONS R274 AND R275 AND CONNECT E285 TO E286 USING BUSS WIRE (ITEM 224)

17. ITEMS ~~108~~, 119, 120, 145 ~~AND 148~~ TO BE INSTALLED WITH A CLEARANCE OF .020 (MIN) AND .120 (MAX) BETWEEN COMPONENT BODY AND PWB (ITEM 1)

18. MAX LEAD LENGTH BELOW SURFACE OF BOARD .07

19. TIGHTEN TRANSISTOR MOUNTING HARDWARE ON HEATSINKS (ITEM 195, 196 AND 197) TO 3.0 ± .5 IN-LBS AND OTHER HARDWARE ON HEATSINKS TO 6.0 ± .5 IN-LBS TORQUE DRIVE TO BE APPLIED TO NUT NOT SCREW

20. SOLDER GROUND WIRES (ITEMS 186 AND 187) TO PWB PER PROCESS 3 AND REF DESIGNATOR INDICATED

21. SECURE CAP (ITEM 169) TO PWB WITH A 1-INCH MINIMUM BEAD OF RTV (ITEM 200) ALONG EACH ACCESSABLE SIDE AND BETWEEN ADJACENT CAPACITORS

22. FOR -0101, -0201 AND -801 ASSEMBLIES INSTALL SIG/CHASSIS GND OPTION CABLE (ITEM 188) BETWEEN E222 AND E223 [REF ONLY: CUSTOMER OPTION ISC CONNECTS E222 TO E221] SEE VIEW K SH 4 (A-2) FOR -0401 ASSEMBLIES INSTALL BUS WIRE (ITEM 223) BETWEEN E221 AND E223 PER PROCESS 3, SEE VIEW R SH 5 (B-7)

23. SECURE BATTERY (ITEM 249) USING THREE PIECES OF TAPE (ITEM 227).

24. SEE VIEW N SH 3 (C-7) FOR INSTALLATION OF ITEM 37 AND ITS SUBSTITUTE PART (ITEM 234) AND PCB MODIFICATION

NOTES CONTINUED ON SHEET 1A

DWG NO 999947 SH 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 439523 LM UPDATE	5-3-79	D. Stamer
B	CN 451049 LM UPDATE	5-3-79	D. Stamer
C	CN 451052 LM UPDATE	5-3-79	D. Stamer
D	CN 443621 LM UPDATE	5-3-79	D. Stamer
E	CN 438088 LM UPDATE	5-3-79	D. Stamer
F	CN 438090 LM UPDATE	5-3-79	D. Stamer
G	CN 438092 LM UPDATE	5-3-79	D. Stamer
H	CN 438093 C Davis	6/20/79	[illegible]
	1) LM -101 & 102 ITEM 94 QTY WAS 7		
J	CN 433475 S. Stevens	8/21/79	[illegible]
K	CN 433445 S. Stevens	8/21/79	[illegible]
L	CN 433476 S. Stevens	8/21/79	[illegible]
M	CN 433468 S. Stevens	8/21/79	[illegible]
N	CN 433477 S. Stevens	8/21/79	[illegible]
P	CN 434014 S. Stevens	8/21/79	[illegible]
R	CN 439035 S. Stevens	9/11/79	Dave Stamer
	NEW DESIGN PER ENGINEERING CHANGE		
T	CN 459633 REKHA SETH	10-8-79	D. Stamer
	1) LM UPDATE 2) ADDED LM-5001		
U	CN 434008 (B) J.A. ROY	2/25/80	[illegible]
	(1.) ADDED ITEMS 239 AND 239A (2.) ADDED NOTES 29 AND 30 (3.) CHNG P/N ITEM 126 P/N WAS 539370-460, OHMS WAS 6.04K (4.) CHNG P/N ITEM 127 P/N WAS 539370-504, OHMS WAS 17.4K		
V	CN 455660 (C) J.A. ROY	2/26/80	[illegible]
	(1.) LM 101, 201, 401 ITEM 239 P/N WAS 2207644-2		
W	CN 455655 (D) J.A. ROY	2/26/80	[illegible]
	(1.) ADD LM-801 & -1 (2.) ALL DASH NO. ADD IT 240 (3.) LM-1 ADD IT 241 (4.) RESTRUCTURE LM-101, -201, -401 & -5101 (5.) ADD -1 & -801 TO DASH SCHEDULE		
Y	CN454982 (D) S Dodson (1) -1 LM: ADDED ITEM 243 & 244, ITEM 232 WAS 996707-2 (2) ADDED NOTE 31 AND VIEW N-N NO MICROFILM THIS ECN	5/19/80	S Dodson
AA	CN452389 (D) S Dodson (1) -1 LM: ADDED ITEM 132 NO MICROFILM THIS ECN		
AB	CN458461 (C) S Dodson (1) -101, -201, -401:	5-19-80	S Dodson
	ITEM 22 WAS 2207625-3, ITEM 23 WAS 2207625-4, DELETED ITEM 239 & 237		

CONTINUED REVISIONS ON SH 1A

999947-0801	TERMINAL ELECTRONICS 115 V	KATAKANA
999947-0001	TERMINAL ELECTRONICS, COMMON	
999947-5101	TERMINAL ELECTRONICS, DIP + AXIAL INSERT	
999947-0401	TERMINAL ELECTRONICS, 230 VOLT	BPO
999947-0201	TERMINAL ELECTRONICS, 230 VOLT	EUROPEAN
999947-0101	TERMINAL ELECTRONICS, 115 VOLT	DOMESTIC
PART NUMBER	DESCRIPTION	REMARKS

NOTE: ANY CHANGE AFFECTING 999947 DRWG MUST ALSO ECN 2207413 TO UPDATE THE REVISION STATUS BLOCK

REV STATUS	BA	BA	AW	AT	AT	AT	AT
OF SHEETS	1	1A	2	3	4	5	6
~~REV STATUS~~	~~AR~~	~~AR~~	~~AR~~	~~AR~~	~~AF~~	~~AH~~	~~AH~~
~~OF SHEETS~~	~~1~~	~~1A~~	~~2~~	~~3~~	~~4~~	~~5~~	~~6~~
~~REV STATUS~~	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
~~OF SHEETS~~	~~1~~	~~1A~~	~~2~~	~~3~~	~~4~~	~~5~~	~~6~~

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

SEQ NO	PROCESS IDENT	PROCESS F-SPEC	CLASSIFICATION NO	CLASSIFICATION ADDITIONAL	NOTES
3	SLDR	127-02	00		20
2	SLDR	124-00	00		4
1	MARK	100-02	21	HEIGHT: 06; COLOR: BLACK	2 3

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

NEXT ASSY	USED ON
999974	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  - 3 PLACE DECIMALS ±.010
  - 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

		DATE
DWN	Gary Chappell	3-23-79
CHK	Dave Stamer	5-3-79
ENGR	Walt Russell	5-3-79
APVD	Daniel R Estrada	5-3-79
QA	[illegible]	9/3/79
CONTR	[illegible]	
RLSE	[illegible]	5/3/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

TERMINAL/ ELECTRONICS

SIZE D | FSCM NO 96214 | DRAWING NO 999947 | FILMED
SCALE 1/1 | SHEET 1 OF 7

DWG NO	SH
999947	1A

NOTES:

25 ROUTE JUMPER UNDER HEAT SINK
FROM: LOWER RIGHT LEG OF C204
TO: LEFT LEG OF R133 AND RIGHT LEG OF R125

26 REMOVE SOLDER MASK FROM GROUND A BETWEEN U6 & U112 AS SHOWN IN DETAIL 5 SHEET 4 (C-7). ROUTE JUMPER UNDER HEAT SINK:
FROM: E233
TO: GROUND A PER DETAIL 5

27 INSTALL JUMPER ON COMPONENT SIDE OF BOARD
FROM: U110 - PIN 8
TO: FEEDTHRU ABOVE U20 - PIN 37

28 CUT THE RUN WHICH CONNECTS TO U112 - PIN 7 PER DETAIL 5 INSTALL JUMPER
FROM: U112 - PIN 7
TO: U6 - PIN 8

29. WHEN USING ROMS 2207625-3 AND-4 OR -5 AND -6 OR ROM ADAPTOR KIT 2207637-1 WITH ROMS 2206545-1,2,3 AND 4 IN LOCATIONS U9 AND U10, EXACTLY ONE OF THE FOLLOWING PROMS MUST BE PRESENT:

2207644-4	PROM, PREPROG., 820 PATCH
2207438-4	PROM. PREPROG., CHAR. SET UK WITH PATCH
2207438-2	PROM. PREPROG., CHAR. SET SWD/FIN WITH PATCH
2207438-3	PROM. PREPROG., CHAR. SET DEN/NOR WITH PATCH
2207438-1	PROM, PREPROG, CHAR. SET UK WITH PATCH
2207438-5	PROM. PREPROG., CHAR. SET GERMANY WITH PATCH

IF ONE OF THE EUROPEAN CHAR. SET OPTIONS IS USED, THEN ITEM 239, 2207644-4 IS NOT USED.

30 SECURE BUSS BAR (ITEM 208) WITH 1/4 INCH BEAD OF SILICONE RUBBER (ITEM 200) IN 7 PLACES BETWEEN SOLDER CONNECTIONS

31 ADD CAPACITOR C216 IN THE SAME HOLES AS THE REGULATOR LEADS (U205) ACCORDING TO VIEW N-N

32 INSTALL JUMPERS USING BUS WIRE (ITEM 224) IN PLACE OF COMPONENTS C261 AND CR262

33. INSTALL THE ONE BIT ROM, P/N 2361105-1, IN SOCKET XU12 IN RO MACHINES THAT DO NOT HAVE THE DFC (MFG) OPTION. THIS ROM WILL BE REQUIRED ON 820 RO BOARDS THAT CONTAIN,
A) ROM ADAPTOR BOARD, P/N 999962 OR
B) ROMS 2207625-0003 THRU -0008 IN SOCKETS XU9 AND XU10
THE ONE BIT ROM WILL NO LONGER BE REQUIRED WHEN NEW ROMS, P/N 2207625-0009 AND -0010 BECOME AVAILABLE.

34 INSTALL TWO JUMPERS ON COMPONENT SIDE OF BOARD. ONE IN THE PLACE OF R102 THE OTHER FROM R104, RIGHT END, TO FEEDTHRU JUST TO THE RIGHT OF U105 - PIN 12

35 MOUNT DIODE (ITEM 045) AS SHOWN ON SHEET 4, ZONE D-5

36 MOUNT CAPACITOR (ITEM 150) AS SHOWN ON SHEET 4, ZONE D-4

37 *APPLY FOAM TAPE (ITEM 227) TO CRYSTAL (ITEM 207). PRESS CRYSTAL DOWN TO SURFACE OF PWB UNTIL CONTACT IS MADE BETWEEN FOAM TYPE AND PWB (ITEM 1).*

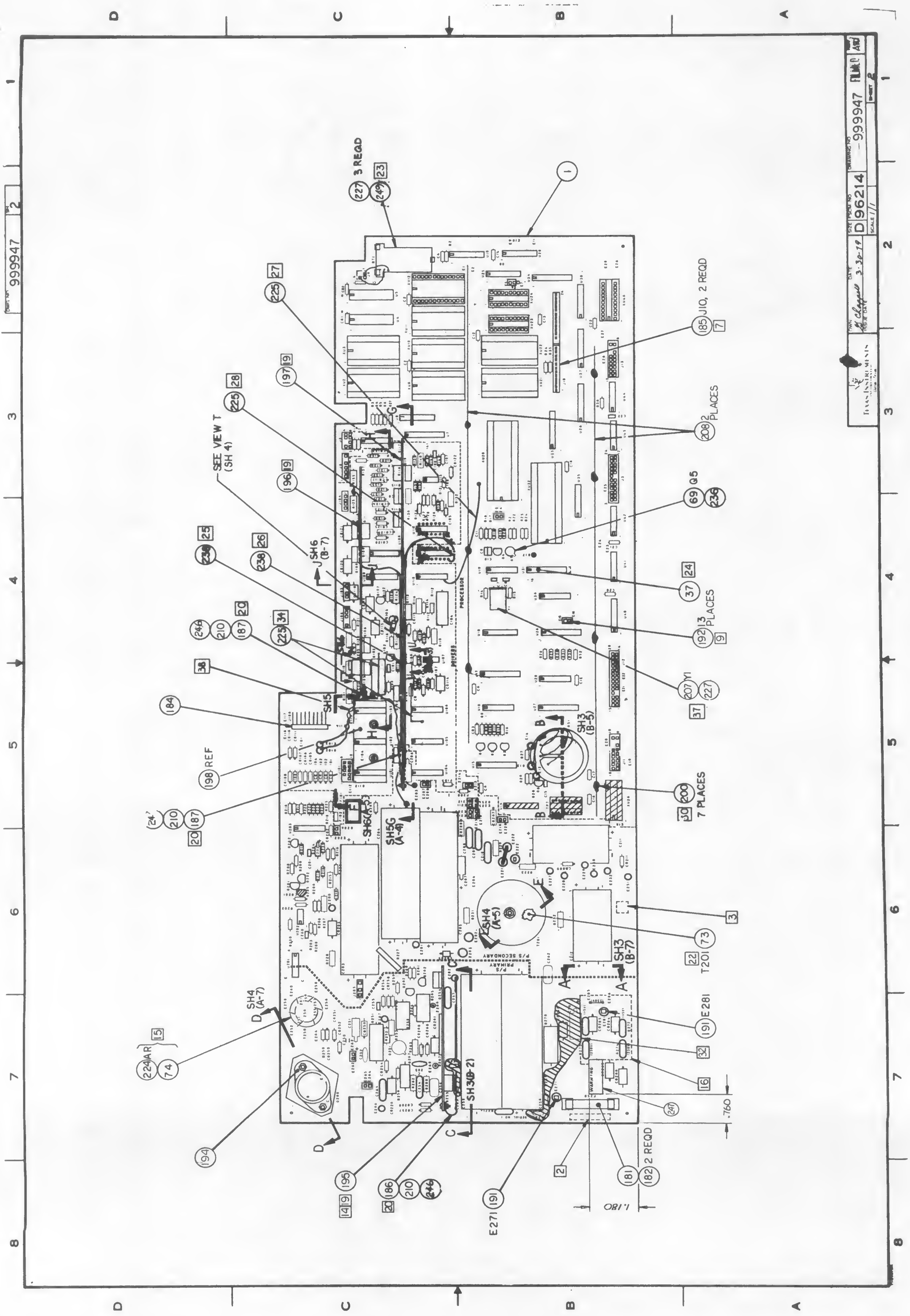
38 *BEFORE SOLDERING SECOND GROUND WIRE, WRAP WIRE 2 OR 3 TIMES AROUND FIRST WIRE.*

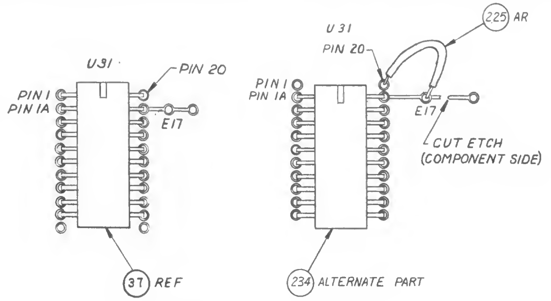
39. *ITEMS 47, 48, 49, 50, 54, 57, 58, 59, 60, 61, 113, 119, 120, 145 ARE TO BE PREPPED FOR STAND-OFF NOT TO EXCEED 5/32 IN HEIGHT*

REVISIONS

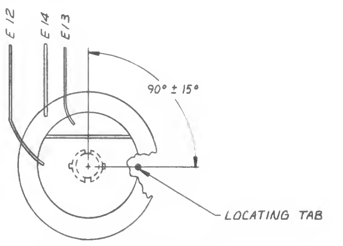
REV	DESCRIPTION	DATE	APPROVED
AC	CN452372 (D) M Kuehn (1) REVISED PER EXTENSIVE ENGINEERING CHANGE. NO MICROFILM COPY AVAILABLE.	7/8/80	
AD	CN452392 (D) M Kuehn (1) REVISED PER EXTENSIVE ENGINEERING CHANGE. NO MICROFILM COPY AVAILABLE.	7/8/80	
AE	CN458447 (D) M Kuehn (1) REVISED PER EXTENSIVE ENGINEERING CHANGE. NO MICROFILM COPY AVAILABLE,	7/8/80	
AF	CN444273 (D) M Kuehn (1) -0801 LM ITEM 21 P/N WAS 999906-0001	7/8/80	
AG	CN457272 (D) S Dodson (1) -1 LM: ITEM 189 QTY WAS 145	8-22-80	S Dodson
AH	CN457273 (D) J Higginbotham (1) REV. PER. EXT. ENG. CHANGES	10/24/80	
AJ	CN457280 (D) J Higginbotham (1) ON -0001 LM: ITEM 8 P/N WAS 0996594-0001; ITEM 9 P/N WAS 2210036-0001; ADDED ITEM 247 (2) SH 2, ZN B-7: ADDED LOCATION OF WARNING LABEL	12/16/80	
AK	CN445620 (D) M Kuehn (1) ON -0801 LM, ITEM 22 P/N WAS 999905-1 (2) ON -0801 LM, ITEM 23 P/N WAS 999905-2	2-25-81	
AL	CN465610 (D) M Kuehn (1) REVISED PER EXTENSIVE ENGINEERING CHANGES	2-25-81	S Dodson
AM	CN465645 (D) M Kuehn (1) ON -0001 LM, ITEM 16 P/N WAS 2210307-4 (2) ON -0001 LM, ADDED ITEM 248	2-25-81	S Dodson
AN	CN444266 (D) M Kuehn (1) ON -0101, -0201, AND -0401 LM'S, DELETED ITEM 21; ITEM 22 P/N WAS 2207625-7; ITEM 23 P/N. WAS 2207625-8	2-25-81	S Dodson
AP	CN477211 (D) M Kuehn (1) ADDED NOTE 39 (2) ON -0001 LM ITEM 185 QTY WAS 1; ITEM 231 QTY WAS 1; ADDED ITEM 249	2-25-81	S Dodson
AR	CN477279 (D) DAVE STARNES 1) LM-1, DELETE ITEM 173 P/N 2210188-11, QTY 1 2) LM -501 DELETE ITEM 14 P/N 972037-1910, QTY 1 3) SH 1 (B-8) DELETE NOTE 10 4) SH3 (B-5) SECTION B-B DELETE NOTE 10 & ITEM 10 FROM DWG 5) SH2 (B-5) INDICATED U14 & TP7 AS NOT USED	4-21-81	D Owens
AT	CN 465616 (D) Paul Rev (1) REV PER EXT. ENG. CHANGES	6-25-81	D Owens
AU	CN 466130 (B) Paul Rev 1) 1-LM ITEM 0153 WAS QTY 3 2) LM ADDED ITEM 252	6-25-81	D Owens
AV	CN477609 (C) Paul Rev 1) REV NOTE 22	6-25-81	D Owens
AW	CN477603 (D) JoAnn Tagliarino 1) REVISED PER EXT ENG CHANGES	10-28-81	M Kenek
AY	CN479166 (D) JoAnn Tagliarino 1) REVISED PER EXT ENG CHANGES	10-28-81	M Kenek
BA	CN482310 (B) JoAnn Tagliarino 1) UPDATED LM 2) UPDATE REV LVL BLK	1-29-82	M Kenek

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN S. Stirns DATE 9-8-79 ISSUE DATE	SIZE D	FSCM NO 96214	DRAWING NO 999947	REV BA
		SCALE 1/1		SHEET 1A	

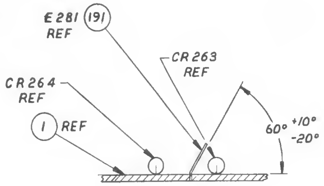

999947
2
D
C
B
A
1
2
3
4
5
6
7
8
227 3 REQD
249
23
1
225
27
185 J10, 2 REQD
7
197
19
225
28
SEE VIEW T (SH 4)
196
19
208 2 PLACES
69 Q5
236
SH6 (B-7)
238
25
236
26
37
24
246
210
187
20
225
34
192 3 PLACES
9
38
207 Y1
227
37
184
SH5
198 REF
200
J10
7 PLACES
24
210
187
20
SH6 (A-5)
SH5G (A-4)
SH4 (A-5)
3
73
T201
22
SH3 (B-5)
SH3 (B-7)
PROCESSOR
DRIVERS
P/S PRIMARY
P/S SECONDARY
191 E281
32
16
224AR
15
74
SH4 (A-7)
194
195
14
19
186
210
246
20
SH3(B-2)
E271 191
2
181
182 2 REQD
247
.760
1.180
D96214
999947
FILM
3-30-79
TEXAS INSTRUMENTS



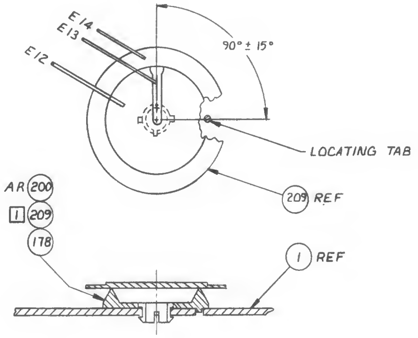
VIEW N
SH1 (B-4)
SCALE: NONE



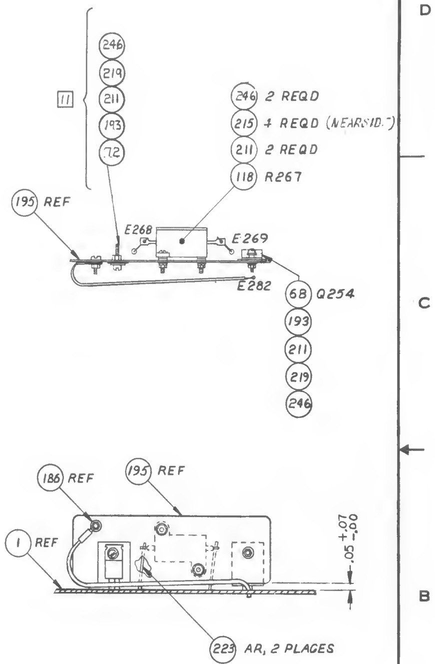
ALTERNATE CONFIGURATION



VIEW A-A
SH2 (B-6)
SCALE: 2 1
ROTATED 90°
CLOCKWISE



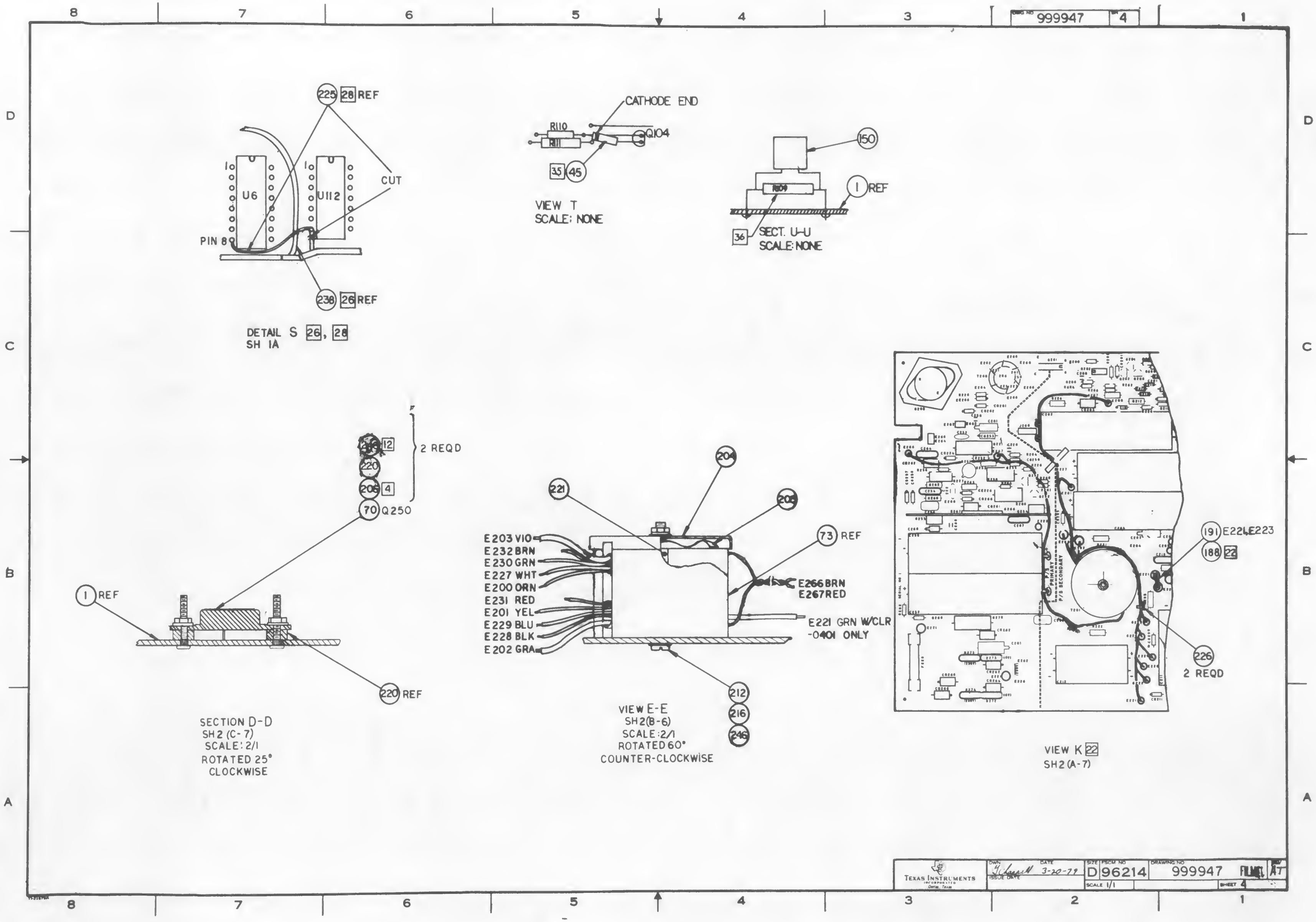
SECTION B-B
SH2 (B-5)
SCALE: 2/1



VIEW C-C
SH2 (B-7)
11

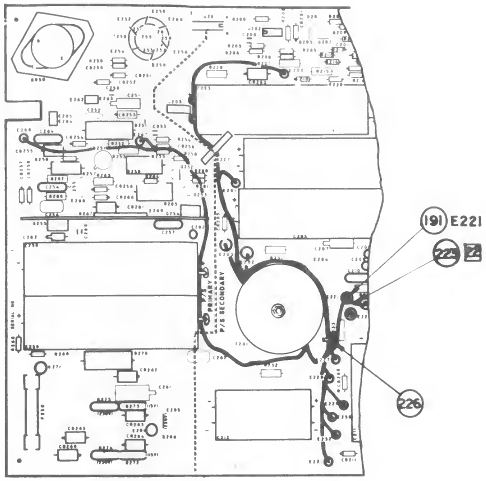
TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

DWN *Stewart*	DATE 3-23-79	SIZE D	FSCM NO 96214	DRAWING NO 999947 FILMED	REV AT
ISSUE DATE		SCALE 1/1		SHEET 3	

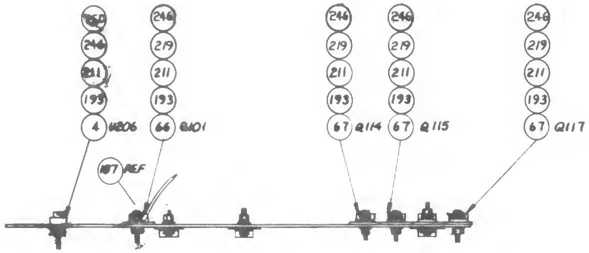


TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

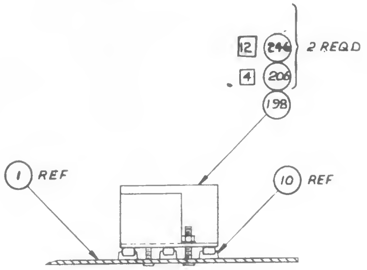
DWN Tilmell DATE 3-20-79
ISSUE DATE
SIZE D FSCM NO 96214
DRAWING NO 999947 FILMED
REV AT
SCALE 1/1
SHEET 4



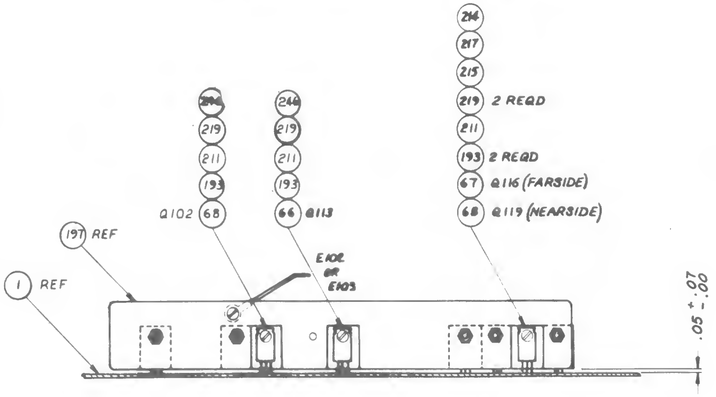
VIEW R 22
SH 2 (A-7)



(246) (246) (211) (193) (4) U206
(246) (219) (211) (193) (66) Q101
(187) REF
(246) (219) (211) (193) (67) Q114
(246) (219) (211) (193) (67) Q115
(246) (219) (211) (193) (67) Q117

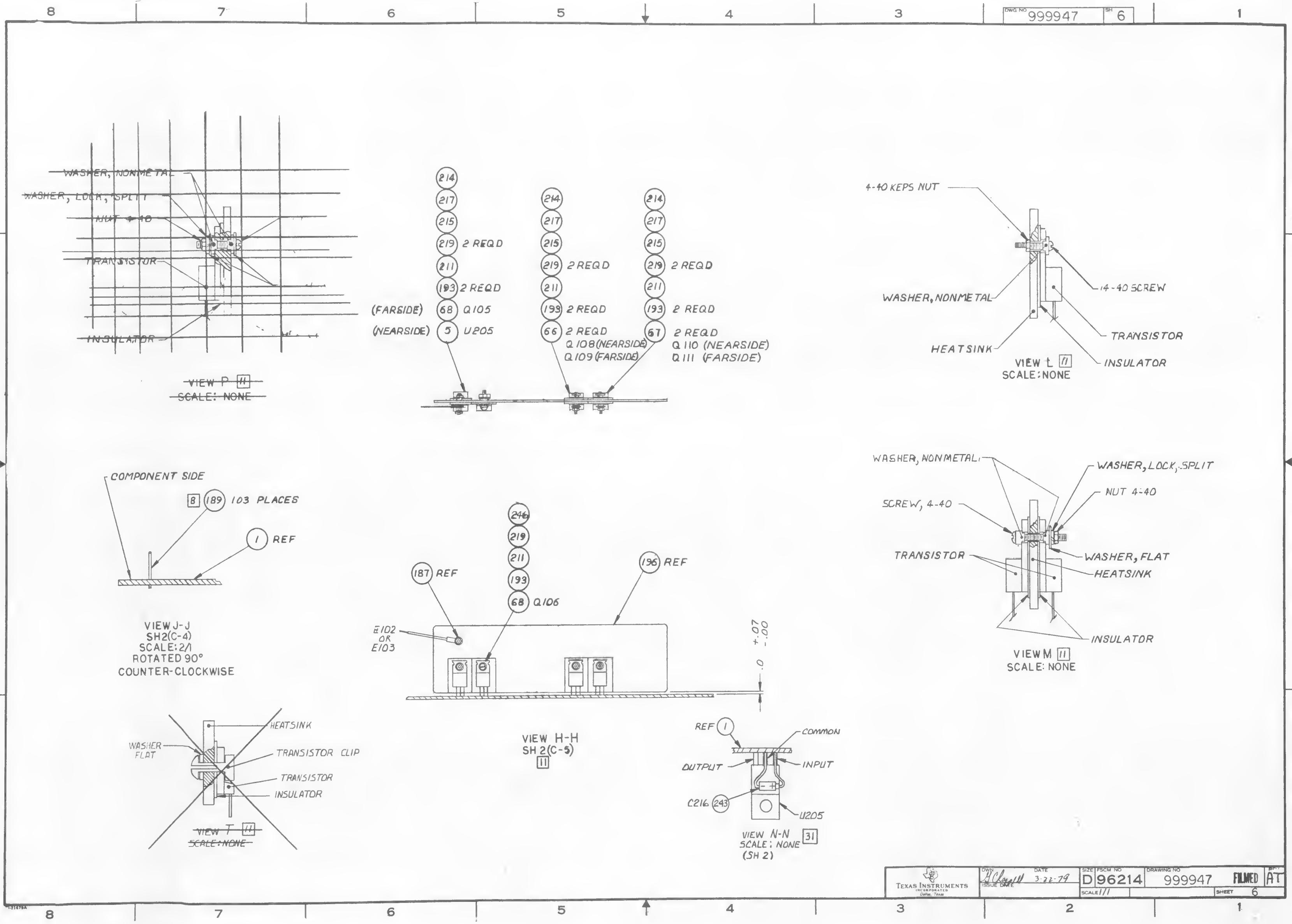


VIEW F-F
SH2 (C-5)
ROTATED 180°



VIEW G-G
SH 2 (C-6)
11

TEXAS INSTRUMENTS INCORPORATED Dallas Texas	DWN Gary	DATE 3-22-79	SIZE D	FSCM NO 96214	DRAWING NO 999947 FILMED	REV AT
	ISSUE DATE		SCALE 1/1		SHEET 5	


DWG NO 999947 SH 6
~~WASHER, NONMETAL~~
~~WASHER, LOCK, SPLIT~~
~~NUT 4-40~~
~~TRANSISTOR~~
~~INSULATOR~~
~~VIEW P 11~~
~~SCALE: NONE~~
214
217
215
219 2 REQD
211
193 2 REQD
(FARSIDE) 68 Q105
(NEARSIDE) 5 U205
214
217
215
219 2 REQD
211
193 2 REQD
66 2 REQD
Q108 (NEARSIDE)
Q109 (FARSIDE)
214
217
215
219 2 REQD
211
193 2 REQD
67 2 REQD
Q110 (NEARSIDE)
Q111 (FARSIDE)
4-40 KEPS NUT
WASHER, NONMETAL
4-40 SCREW
TRANSISTOR
HEATSINK
INSULATOR
VIEW L 11
SCALE: NONE
COMPONENT SIDE
8 189 103 PLACES
1 REF
VIEW J-J
SH2(C-4)
SCALE: 2/1
ROTATED 90°
COUNTER-CLOCKWISE
246
219
211
193
68 Q106
187 REF
196 REF
E102
OR
E103
+.07
-.00
.0
VIEW H-H
SH 2(C-5)
11
WASHER, NONMETAL
WASHER, LOCK, SPLIT
NUT 4-40
SCREW, 4-40
TRANSISTOR
WASHER, FLAT
HEATSINK
INSULATOR
VIEW M 11
SCALE: NONE
HEATSINK
WASHER FLAT
TRANSISTOR CLIP
TRANSISTOR
INSULATOR
~~VIEW T 11~~
~~SCALE: NONE~~
REF 1
COMMON
OUTPUT
INPUT
C216 243
U205
VIEW N-N 31
SCALE: NONE
(SH 2)
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN
DATE 3-22-79
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 999947
FILMED
REV AT
SCALE 1/1
SHEET 6
8
7
6
5
4
3
2
1
D
C
B
A

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999947-0101    BA        TERMINAL ELECTRONICS, 115 V

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION.......................... UM

0002        REF       0999945-0001   DIAG,LOGIC,DETAILED TERMINAL ELECT        EA

0022      00001.000   2207625-0009   INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL  EA

0022A                                U9

0023      00001.000   2207625-0010   INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL  EA

0023A                                U10

0025 .    00002.000   2210363-0001   IC, 1K X 8-BIT STATIC RAM                 EA
                                     0000-0000-000
0025A                                U2,U3
                                     0000-0000-000
0073      00001.000   0999789-0001   TRANSFORMER,SWITCH MODE,820 PWR SUPPLY    EA
                                     GFSMFG-77-484-1
0073A                                T201
                                     GFSMFG-77-484-1
0172      00000.000   0972931-0084   CAPACITOR,2300UF 40V  FX ELCTLT ALUM      EA
                                     056289-604D292G040JS6
0172A                                C203,C204
                                     056289-604D292G040JS6
0183      00002.000   0972808-0001   THERMISTOR, DISC, 5 OHM                   EA
                                     5961-0000-000
0183A                                R272,R273
                                     5961-0000-000
0188      00001.000   0999869-0002   CABLE ASSY,SIGNAL/CHASSIS,GROUND-OPTION   EA
                                     1221-2869-027
0224      00000.200   0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER       FT
                                     -    -    -000
0240      00001.000   0999947-0001   TERMINAL ELECTRONICS COMMON               EA
                                     1221-7947-080
9999      00003.000   0239999-9999   COST, SHRINKAGE                           EA
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LIST OF MATERIALS

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03/09/83

PART NUMBER    REV        DESCRIPTION..........................
0999947-0001    BA        TERMINAL ELECTRONICS COMMON

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION.............................. UM
0003      00001.000   0222224-2741   NETWORK  SN72741P  OPERATIONAL AMP         EA

                                           -SN72741P
0003A                                U202
                                           -SN72741P
0004      00001.000   0972499-0002   NETWORK,VOLG REG,NEG,3 TERM-(-12V)         EA

0004A                                U206

0005      00001.000   0972872-0012   NETWORK,LM 340-12T VOLTAGE REGULATOR       EA
                                     NSC    - LM340-12T
0005A                                U205
                                     NSC    - LM340-12T
0007      00002.000   0996709-C001   IC, LM393P DIFFERENTIAL COMPARATOR         EA
                                     001295-LM393P
0007A                                U107,U113
                                     001295-LM393P
0008      00001.000   2211462-0001   IC.OP12729, OPT COUPLER,UL/VDE APPROVED    EA
                                     SEE TI- DRAWING
0008A                                U201
                                     SEE TI- DRAWING
0009      00000.000   0996594-0001   ISOLATOR,OPTICALLY COUPLED                 EA
                                     024972-CNY 21
0009A                                U201,ITEM 9 MAY BE
                                     024972-CNY 21
0C09B                                SUBSTITUTED AS AN ALTERNATE
                                     024972-CNY 21
0009C                                FOR ITEM 8
                                     024972-CNY 21
0013      00C01.000   0800118-0015   RESISTOR 6.8KOHMS DIL PULL UP 16 PINS      EA
                                     BEC    -8981R6.8K
0013A                                U38
                                     BEC    -8981R6.8K
0015      00001.000   2210301-0001   IC, MICROPROCESSOR, CPU                    EA
                                     056708-Z80A-CPU-PS
0015A                                U20
                                     056708-Z80A-CPU-PS
0016      00001.000   2211142-0002   IC,Z80A-DART-PS                            EA
                                     SEE TI- DRAWING
0016A                                U32
                                     SEE TI- DRAWING
0017      00000.000   2210307-0001   IC,(USART) SERIAL I/O,SIO/0 BONDING        EA
                                     056708-SEE DRAWING
0017A                                U32,ITEM 17 MAY BE
                                     056708-SEE DRAWING
0017B                                SUBSTITUTED AS AN ALTERNATE
                                     056708-SEE DRAWING
0017C                                FOR ITEM 16.
                                     056708-SEE DRAWING
0018      00000.000   2210307-0002   IC,(USART) SERIAL I/O,SIO/1 BONDING        EA
                                     056708-SEE DRAWING
0018A                                U32,ITEM 18, MAY BE
                                     056708-SEE DRAWING
0018B                                SUBSTITUTED AS AN ALTERNATE
                                     056708-SEE DRAWING
0018C                                FOR ITEM 16
                                     056708-SEE DRAWING
0C19      00000.000   2210307-0003   IC,(USART) SERIAL I/C,SIO/2 BONDING        EA
                                     056708-SEE DRAWING
0019A                                U32,ITEM 19,MAY BE
                                     056708-SEE DRAWING
0019B                                SUBSTITUTED AS AN ALTERNATE
                                     056708-SEE DRAWING
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PART NUMBER    REV        DESCRIPTION.............................
0999947-0001    BA        TERMINAL ELECTRONICS COMMON

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0019C                              FOR ITEM 16
                                   056708-SEE DRAWING
0020      00002.000   2210302-0001 IC, COUNTER TIMER CKT,28 PIN CERAMIC PKG  EA
                                   056708-Z80A-CTC
0020A                              U21,U22
                                   056708-Z80A-CTC
0024      00002.000   0996203-0002 IC,S 5101L-1 1024BIT(256 X 4)ST CMOS RAM  EA
                                   034649-S5101L-1
0024A                              U4,U5
                                   034649-S5101L-1
0032      00001.000   0972900-7109 NETWORK  SN74LS109N                       EA
                                   0000-0000-000
0032A                              U40
                                   0000-0000-000
0035      00001.000   0972686-0001 NETWORK-QUAD MULTIPLEXER, SN74LS157N      EA

0035A                              U35

0036      00004.000   0996089-0004 IC,SN74LS244N LINE DRIVER                 EA
                                           -SN74LS244N
0036A                              U17,U29,U33,U34
                                           -SN74LS244N
0037      00001.000   0996755-0001 IC,SN74LS245N BUS XCVR TRANSITION         EA
                                   001295-SN74LS245N
0037A                              U31
                                   001295-SN74LS245N
0039      00005.000   0996029-0001 IC,SN74LS273N OCTAL D-TYPE FLIP/FLOP      EA
                                   TI      -SN74LS273N
0039A                              U7,U15,U27,U36,U37
                                   TI      -SN74LS273N
0040      00002.000   0996015-0001 IC,QUAD LINE DRIVERS SN75188N             EA
                                   TI      -SN75188N
0040A                              U41,U42
                                   TI      -SN75188N
0041      00002.000   0972450-0002 NETWORK,SN75189AN/MC1489AL QUAD LINE RCR  EA
                                   SEE    - TI DRAWING
0041A                              U43,U44
                                   SEE    - TI DRAWING
0044      00001.000   0972932-0001 DIODE 1N9148                              EA
                                   SEE TI- DRAWING
0044A                              CR1
                                   SEE TI- DRAWING
0045      00001.000   0539468-0002 DIODE,1N4002 1AMP  100PIV RECTIFIER       EA
                                   TI      - IN4002
0045A                              CR140
                                   TI      - IN4002
0046      00001.000   0539468-0007 DIODE,1N4007 1AMP 1000PIV RECTIFIER       EA
                                   TI      -1N4007
0046A                              CR258
                                   TI      -1N4007
0047      00001.000   0972116-0001 X DIODE UTG1249 (MAY USE 1N5808/1N5809)   EA
                                   UNT    --UTG 1249
0047A                              CR205
                                   UNT    --UTG 1249
0048      00006.000   0996036-0003 DIODE,3 AMP 100V RECTIFIER                EA
                                   004713-MR 851
0048A                              CR114,CR116,CR118-CR121
                                   004713-MR 851
0049      00001.000   0972164-0001 DIODE,MR501                               EA

0049A                              CR255
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PART NUMBER	REV	DESCRIPTION............................
0999947-0001	BA	TERMINAL ELECTRONICS COMMON

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0050	00004.000	0972164-0006	DIODE,3 AMP 1,000V SILICONE 004713-MR510	EA
0050A			CR263,CR264,CR265,CR266 004713-MR510	
0051	00001.000	0972118-0002	DIODE, 43VV, ZENER, 5 WATT 1N5367-B	EA
0051A			CR225 1N5367-B	
0052	00001.000	0972268-0006	DIODE IN4937 1 AMP SEE - TI DRAWING	EA
0052A			CR257 SEE - TI DRAWING	
0053	00001.000	0972268-0002	DIODE,1N4934,1 AMP MOT - 1N4934	EA
0053A			CR209 MOT - 1N4934	
0054	00001.000	0996036-0004	DIODE,MR852 RECTIFIER SILICON FAST RCVY 004713-MR852	EA
0054A			CR203 004713-MR852	
0055	00001.000	0972460-0007	DIODE,SILICON,ZENER 1% SEE - TI DRAWING	EA
0055A			CR201 SEE - TI DRAWING	
0057	00001.000	0801295-0062	SEMICONDUCTOR DEVICE,DIODE 1N5338B 5W 004713-1N5338B	EA
0057A			CR253 004713-1N5338B	
0058	00001.000	0972118-0001	DIODE, IN5339B	EA
0058A			CR207	
0059	00001.000	0972118-0005	SEMICONDUCTOR DEVICE,DIODE-1N5350B 004713-1N5350B	EA
0059A			CR206 004713-1N5350B	
0060	00004.000	0801295-0084	SEMICONDUCTOR DEVICE,DIODE 1N5360B 5W 004713-1N5360B	EA
0060A			CR117,CR133,CR134,CR139 004713-1N5360B	
0061	00001.000	0996036-0006	DIODE,MR856 RECTIFIER SILICON FAST RCVY 004713-MR856	EA
0061A			CR261 004713-MR856	
0062	00006.000	0972057-0001	TRANSISTOR-A5T2222 NPN SILICON 1640-2132-000	EA
0062A			Q2,Q3,Q6,Q107,Q202,Q252 1640-2132-000	
0063	00003.000	0800523-0001	TRANSISTOR A5T2907 PNP SILICON TI- -A5T2907	EA
0063A			Q1,Q203,Q253 TI- -A5T2907	
0064	00001.000	0772116-0003	TRANSISTOR,SYMM N-CHANNEL FET TIS73 001295-TIS73	EA
0064A			Q201 001295-TIS73	

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PART NUMBER	REV	DESCRIPTION............................
0999947-0001	BA	TERMINAL ELECTRONICS COMMON

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0065	00001.000	0972542-0001	TRANSISTOR,HV PNP FN5416/S41802	EA
			- -	
0065A			Q251	
			- -	
0066	00004.000	0996712-0001	TRANSISTOR,TIP105 P-N-P POWER	EA
			001295-TIP105	
0066A			Q101,Q108,Q1C9,Q113	
			001295-TIP105	
0067	00006.000	0996801-0001	TRANSISTOR,TIP100 N-P-N,DARLINGTON	EA
			001295-TIP1CC	
0067A			Q110,Q111,Q114-Q117	
			001295-TIP100	
0068	00005.000	0996711-C002	TRANSISTOR,TIP73A N-P-N POWER	EA
			001295-TIP73A	
0068A			C102,Q105,Q106,Q119,C254	
			001295-TIP73A	
0069	00001.000	0972955-0001	XSTR 2N2369A,NPN,HIGH SPEED SW,TO-18	EA
			MOT - 2N2369A	
0069A			Q5	
			MOT - 2N2369A	
0070	00001.000	0996703-0001	TRANSISTOR,2N6545 NPN, 125 WATT POWER	EA
			- -SEE DRAWING	
0070A			Q250	
			- -SEE DRAWING	
0071	00001.000	0800257-0001	TRANSISTOR, MPS 3640, PNP, SWITCHING	EA
			004713-MPS3640	
0071A			Q4	
			004713-MPS3640	
0072	00001.000	2361120-C001	HEATSINK SUPPORT, TO220	EA
			1221-CCC0-000	
0072A			Q255	
			1221-0000-000	
0074	00001.000	0996873-C001	TOROID CORE	EA
			090797-ZF-42206-TC	
0C74A			T250	
			090797-ZF-42206-TC	
0091	00001.000	0972946-0072	RES FIX 2.0K OHM 5 % .25 W CARBON FILM	EA
			ROH - R-25	
0091A			R228	
			ROH - R-25	
0094	00003.000	0972946-0085	RES FIX 6.8K OHM 5 % .25 W CARBON FILM	EA
			ROH - R-25	
0094A			R37,R209,R107	
			ROH - R-25	
0111	00C02.000	0972554-0011	RESISTOR,.25 OHM 3W 1% FX WW	EA
			001686-TR-2A	
0111A			R125,R133	
			001686-TR-2A	
0113	00001.000	0972978-0149	RESISTOR,.10 MEG OHM 1W 5% FIXED CMPSN	EA
			-RCR32G104JS	
0113A			R257	
			-RCR32G104JS	
0116	00001.000	0972947-0065	RES FIX 1.0K OHM 5% .5 W CARBON FILM	EA
			ROH - R-50	
0116A			R233	
			ROH - R-50	
0118	00001.000	0972055-0003	RESISTOR,600 OHM 25W NON-INDUCTIVE WW	EA
			001686-NH-25600OHM,3%	
0118A			R267	
			001686-NH-25600OHM,3%	
0119	00001.000	0972942-0191	RESISTOR,12.7K OHMS 5W 5% WW PWR	EA

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PART NUMBER    REV        DESCRIPTION...........................
0999947-0001    BA        TERMINAL ELECTRONICS COMMON

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

0119A                                R270

0120      00001.000   0972942-0190   RESISTOR,.5 OHM 5W 5% FX,WW  PWR          EA

0120A                                R251

0132      00001.000   0539370-0577   RES FIX FILM 100 K OHM 1% .25 WATT        EA
                                     COR    - NA55
0132A                                R202
                                     COR    - NA55
0139      00001.000   0532439-0399   RESISTOR,1.40K OHMS 1% 1W WW FIXED        EA
                                            -RW70U1401F
0139A                                R215
                                            -RW70U1401F
0145      00002.000   0538425-0119   RESISTOR,22K OHMS  2W  5% FIXED CMPSN     EA
                                            -RCR42G223JS
0145A                                R258,R265
                                            -RCR42G223JS
0150      00004.000   0972929-0367   CAP FIX CERAMIC 22.0  PF 10 % 200 V       EA
                                     QPL    -M39014/01-1367
0150A                                C8,C9,C10,C109
                                     QPL    -M39014/01-1367
0151      00001.000   0972929-0376   CAP FIX CERAMIC 68.0  PF 10 % 200 V       EA
                                     QPL    -M39014/01-1376
0151A                                C22
                                     QPL    -M39014/01-1376
0152      00001.000   0972929-0391   CAP FIX CERAMIC 470   PF 10 % 200 V       EA
                                     QPL    -M39014/01-1391
0152A                                C7
                                     QPL    -M39014/01-1391
0153      00002.000   0972929-0403   CAP    .0022 UF  10%  100V                EA

0153A                                C15 C200

0154      00001.000   0410529-0203   CAP FIX CERAMIC .02UF +80%-20% 600 V      EA
                                     CRL    - DD203
0154A                                C264
                                     CRL    - DD203
0159      00001.000   0972476-0001   CAP,.01UF,1% 50WVDC MINIMUM               EA
                                     SEE    - TI DRAWING
0159A                                C104
                                     SEE    - TI DRAWING
0160      00001.000   0972928-0011   CAP FIX MICA 500V 3000 PF 5 %             EA
                                     039001-CMR06F302JOD
0160A                                C256
                                     039001-CMR06F302JOD
0162      00004.000   0412645-0015   CAPACITOR,.1 UF +80,-20% 500VDC CER DIEL  EA
                                     1222-3866-000
0162A                                C208-C210,C257
                                     1222-3866-000
0163      00002.000   0972929-0415   CAP FIX CERAMIC .010  UF 10 % 100 V       EA
                                     QPL    -M39014/01-1415
0163A                                C201,C253
                                     QPL    -M39014/01-1415
0164      00002.000   0972927-0020   CAP FIX MICA 500V 51.0 PF 5 %             EA
                                     SEE TI- DRAWING
0164A                                C252,C255
                                     SEE TI- DRAWING
0165      00001.000   0972929-0433   CAP FIX CERAMIC .100  UF 10 %  50 V       EA
                                     QPL    -M39014/01-1433
0165A                                C250
                                     QPL    -M39014/01-1433
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PART NUMBER	REV	DESCRIPTION............................
0999947-0001	BA	TERMINAL ELECTRONICS COMMON

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0166	00001.000	0996810-0007	CAPACITOR,3900PF 400V 20% CER,DIN TYPE DRALOR-SDPJ18400VN	EA
0166A			C262 DRALOR-SDPJ18400VN	
0167	00001.000	0410529-0103	CAP FIX CERAMIC .010 MF GMV 1 KV CRL - DD-103	EA
0167A			C254 CRL - DD-103	
0169	00002.000	0972601-0004	CAPACITOR,330UF 200V 10% ALUM ELECTLT 090201-TCW331N200N3C3	EA
0169A			C258,C259 090201-TCW331N200N3C3	
0170	00001.000	0972931-0024	CAP,FIXED 14000MFD 7.5V 10% SPR - 604D143G7R5J6	EA
0170A			C205 SPR - 604D143G7R5J6	
0171	00002.000	0972931-0049	CAP,FXD,ELCTLT,AL,1800 MFD,20V,10%+/-75%	EA
0171A			C211,C212	
0184A			J103 000779-640099-9	
0185	00002.000	0972519-0023	SOCKET,SINGLE-IN-LINE 12 POS(GOLD CONT) -1-583780-5	EA
0185A			J10 -1-583780-5	
0186	00001.000	0983836-0003	CABLE,HEATSINK GROUND,BLK/WHT,4.20" 1221-3836-C21	EA
0187	00002.000	0983836-0002	CABLE,HEATSINK GROUND,GRN/YEL,4.20" 1221-2836-C35	EA
0189	00103.000	0972456-0002	PIN,.025 SQUARE 5935-0800-000	EA
0189A			E3 THRU E7,E15,E16, 5935-0800-000	
0189B			E205 THRU E216,E219,E220, 5935-0800-000	
0189C			E234,E235,E262 THRU E265, 5935-0800-000	
0189D			J3-1 THRU J3-6, 5935-0800-000	
0189E			J3-8 THRU J3-24, 5935-0800-000	
0189F			J6-1 THRU J6-4,J6-6, 5935-0800-000	
0189G			J8-1,J8-3 THRU J8-8, 5935-0800-000	
0189H			J9-1,J9-2,J9-4, 5935-0800-000	
0189I			J13-1 THRU J13-7, 5935-0800-000	
0189J			J13-9 THRU J13-15, J13-18, 5935-0800-000	
0189K			J101-2 THRU J101-10, 5935-0800-000	
0189L			J104-1 THRU J104-4, 5935-0800-000	

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PART NUMBER	REV	DESCRIPTION..............................
0999947-0001	BA	TERMINAL ELECTRONICS COMMON

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0189M			J105-1, J105-2, J105-4 5935-0800-000	
0189N			J106-1, J106-3 THRU J106-5 5935-0800-000	
0189O			J203-1, J203-2, J203-4 5935-0800-000	
0190	00000.000	0972494-0001	PIN,.025 SQUARE AMP - 4-87022-2	EA
0191	00004.000	0996706-0002	POST, .715LG PRINTED CIRCUIT 000779-1-86147-8	EA
0191A			E221,E223,E271,E281 000779-1-86147-8	
0192	00013.000	0972487-0001	JUMPER PLUG,CONNECTOR BLACK 5935-0900-000	EA
0193	00018.000	0996521-0018	INSULATOR,THERMALLY CONDUCTIVE,.800 W 055285-SEE TI DWG	EA
0195	00001.000	0999802-0001	HEATSINK,POWER SUPPLY 1684-1802-000	EA
0196	00001.000	0999803-0001	HEATSINK,CARRIAGE DRIVER 1684-1803-000	EA
0197	00001.000	0999804-0001	HEATSINK,PAPER DRIVER 1684-1804-000	EA
0198	00001.000	0999863-0001	HEATSINK,PRINTHEAD/RIBBON DRIVE MOTOR 1684-1863-013	EA
0199	00001.000	0232583-0008	TO-5 MOUNTING PAD,4-LEADS,NYLON 013103-7717-4-N-WHT	EA
0200	AR	0417559-0001	SILICONE RUBBER (RTV) DOW 3140 SEE - TI DRAWING	TU
0201	AR	0417200-0004	PRIMER,SILICONE RUBBER-RED COR - 1203	PT
0204	00001.000	0972306-0003	COVER,RND-1.807LG .019THK ALUM,SEAMLESS 002875-HU-2900CK-AL	EA
0205	00001.000	0972621-0001	SPRING,RING FER -991-191-00	EA
0206	00004.000	0972355-0003	STUD,CLINCH,.375 LONG,BRONZE 046384-KFH-440-6	EA
0207	00001.000	0418801-0004	CRYSTAL,QUARTZ 4.000 MHZ HC-18/U QPL - CR-64/U	EA
0207A			Y1 QPL - CR-64/U	
0208	00002.000	2210323-0001	BUS BAR,PCB, 311.40MM (12.26 IN.) 031745-M823	EA
0209	00001.000	0972461-0001	DISC,SOUND-PIEZO-ELECT 3200 +/- 600 HZ SEE - TI DRAWING	EA
0209A			DS1 SEE - TI DRAWING	
0210	00003.000	0972988-0013	SCREW 4-40 X .250 PAN HEAD CRES	EA
0211	00016.000	0972988-0016	SCREW 4-40 X .438 PAN HEAD CRES	EA
0212	00001.000	0972988-0023	SCREW 4-40 X 1.50 PAN HEAD CRES	EA
0214	00004.000	0416453-0021	NUT,PLAIN,4-40 UNC-2B HEX,CRES,SMALL QPL - NAS671-C4	EA
0215	00008.000	0411027-0803	WASHER .125 X .250 X .022 FLAT CRES QPL - MS15795-803	EA
0216	00001.000	0416622-0011	WASHER #4 FLAT QPL - AN960C4L	EA
0217	00004.000	0411104-0135	WASHER, LOCK-SPRING, HELICAL, #4 QPL - MS35338-135	EA
0219	00017.000	0996941-0001	BUSHING, TRANSISTOR 001295-10-31-483-175	EA

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PART NUMBER	REV	DESCRIPTION..............................
0999947-0001	BA	TERMINAL ELECTRONICS COMMON

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0220	00002.000	0416925-0600	SPACERS-SCREW & BOLT #6 1/4 X.049 - NAS43DD1-8	EA
0221	00001.000	0416925-0417	SPACERS-SCREW AND BOLT #4 3/16 X .028 -NAS43DD-76	EA
0223	00000.200	0411400-0018	WIRE,BARE TINNED,18AWG, COPPER BUS IWP -18-630	FT
0224	00000.500	0411400-0022	WIRE 22AWG ELETRO-TIN-PLATED,COPPER - - -000	FT
0225	AR	2210083-0003	WIRE,ELEC,COND U/L STYLE 1213,24 AWG 090484-WTE24A	FT
0226	00001.000	0418212-0040	STRAP,TIEDOWN,ADJUSTABLE,PLASTIC QPL - MS3367-4-9	EA
0227	00004.000	2211540-0001	FOAM, .35X.50X.05,POLY, ADHESIVE BACKED SEE TI- DRAWING	EA
0231	00000.000	0999880-0001	BATTERY PACK 090303-304321	EA
0231A			ITEM 231 MAY BE SUB AS AN 090303-304321	
0231B			ALTERNATE FOR ITEM 249 090303-304321	
0232	00001.000	0972947-0041	RES FIX 100 OHM 5% .5 W CARBON FILM ROH - R-50	EA
0232A			R227 ROH - R-50	
0233	00000.000	0996914-0001	CLIP,CARTRIDGE FUSE .25 DIA. 071400-1A1907-4	EA
0233A			ITEM 233 MAY BE SUBSTITUTED 071400-1A1907-4	
0233B			AS AN ALTERNATE FOR ITEM 071400-1A1907-4	
0233C			182 071400-1A1907-4	
0234	00000.000	2210422-0001	IC,TRANSCEIVER,BUS, OCTAL 034335-DP8304BN	EA
0234A			ITEM 234 MAY BE SUBSTITUTED 034335-DP8304BN	
0234B			FOR ITEM 37, IF ITEM 234 IS 034335-DP8304BN	
0234C			USED,IT IS TO BE INSTALLED 034335-DP8304BN	
0234D			IN LOCATION U31A 034335-DP8304BN	
0235	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION 1215- REF-000	EA
0236	00001.000	0185113-0001	X SPACER XST TO-18 CASE * -	EA
0238	00001.400	2210917-0005	WIRE,HOOK UP,18GAGE,SOLID INSULATED SEE TI- DRAWING	FT
0241	00001.000	0999947-5101	TERMINAL ELECTRONICS,DIP & AXIAL INSERT 1221-5947-080	EA
0243	00001.000	0418356-2344	CAP FIX 0.22 MF 50V 10% TANTALUM SOLID SEE TI- DRAWING	EA
0243A			C216 SEE TI- DRAWING	
0244	00000.000	0996707-0002	THERMISTOR,DISC, 100 OHMS 015801-NA21J1	EA
0244A			ITEM 244 MAY BE SUBSTITUTED 015801-NA21J1	
0244B			AS AN ALTERNATE FOR ITEM 015801-NA21J1	
0244C			232 015801-NA21J1	

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03/09/83

PART NUMBER    REV        DESCRIPTION............................
0999947-0001    BA        TERMINAL ELECTRONICS COMMON

ITEM.      QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0246       00020.000    2210006-0001    ASSY,HEX NUT,LOCKWASHERS, 4-40              EA
                                        092550-SEE DRAWING
0247       00001.000    2213941-0001    LABEL, WARNING PROCEDURE                    EA

0248       00000.000    2210307-0004    IC,(USART) SERIAL I/O,SIO/9 CHAN A ONLY     EA
                                        056708-SEE DRAWING
0248A                                   U32,MAY BE SUBSTITUTED AS
                                        056708-SEE DRAWING
0248B                                   AN ALTERNATE FOR ITEM 16.
                                        056708-SEE DRAWING
0249       00001.000    2210498-0001    BATTERY PACK                                EA
                                        SEE TI- DRAWING
0250       00001.000    0972628-0001    WASHER,#4 .115ID .200OD-SHLDR NON-MET       EA
                                        SEA    -5607-45
0252       00001.000    0972965-0006    CAP FIX CERAMIC .0033 UF 10% 200V           EA
                                        QPL    - CK06BX332K
0252A                                   C108
                                        QPL    - CK06BX332K
9999       00002.000    0239999-9999    COST, SHRINKAGE                             EA
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PART NUMBER    REV        DESCRIPTION............................
0999947-5101    BA        TERMINAL ELECTRONICS,DIP & AXIAL INSERT

ITEM.      QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0001       00001.000    0999946-0001    PWB, TERMINAL ELECTRONICS                   EA

0006       00001.000    0972663-0001    NETWORK,LM339N                              EA

0006A                                   U203

0010       00003.000    0996727-0002    IC,ULN2065B.DARLINGTON QUAD                 EA
                                        056289-ULN2065B
0010A                                   U101,U102,U103
                                        056289-ULN2065B
0011       00001.000    0972141-0041    NETWORK,RES. 1.0 K OHM 2 % 14 PIN DIP       EA
                                        BEC    - 899-1-R1.0K
0011A                                   U106
                                        BEC    - 899-1-R1.0K
0012       00001.000    0972141-0031    NETWORK,RES. 390  OHM 2 % 14 PIN DIP        EA
                                        BEC    - 899-1-R390
0012A                                   U109
                                        BEC    - 899-1-R390
0026       00001.000    0972900-7402    NETWORK,SN74LS02N                           EA

0026A                                   U110

0027       00001.000    0972900-7404    NETWORK SN74LS04N                           EA

0027A                                   U19

0028       00001.000    0222222-7406    NETWORK SN7406N                             EA

0028A                                   U28

0029       00001.000    0972749-0001    NETWORK, SN74LS08N                          EA

0029A                                   U16

0030       00001.000    0972784-0002    NETWORK SN74LS14N                           EA
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PART NUMBER   REV        DESCRIPTION.............................
0999547-5101   BA        TERMINAL ELECTRONICS,DIP & AXIAL INSERT

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.............................  UM

0030A                                 U1

0031      00004.000    0222222-7417   NETWORK-SN7417N                              EA

0031A                                 U104,U105,U108,U112

0033      00001.000    0996399-0001   IC,SN74LS107N DUAL-NEGATIVE-EDGE             EA
                                      001295-SN74LS107N
0033A                                 U30
                                      001295-SN74LS107N
0034      00002.000    0972900-7138   NETWORK  SN74LS138N                          EA
                                      TI     -SN74LS138N
0034A                                 U25,U26
                                      TI     -SN74LS138N
0038      00002.000    0972120-0001   NETWORK,SN74259 8-BIT ADDRESSABLE LATCH      EA
                                      001295-74259
0038A                                 U18,U6
                                      001295-74259
0042      00001.000    2206549-0001   PROM,PROGRAMMED,TACH PHASE DECODE            EA
                                      1221-6549-015
0042A                                 U8
                                      1221-6549-015
0043      00001.000    2206550-0001   PROM,PROGRAMMED,MEMORY SELECT DECODE         EA
                                      1221-6550-019
0043A                                 U13
                                      1221-6550-019
0044      00005.000    0972932-0001   DIODE 1N914B                                 EA
                                      SEE TI- DRAWING
0044A                                 CR2,CR112,CR113,CR210,CR256
                                      SEE TI- DRAWING
0045      00030.000    0539468-0002   DIODE,1N4002 1AMP  100PIV RECTIFIER          EA
                                      TI     - 1N4002
0045A                                 CR3 CR101-CR111 CR123 CR125
                                      TI     - 1N4002
0045B                                 THRU CR132 CR135-CR138
                                      TI     - 1N4002
0045C                                 CR204 CR250-CR252 CR254
                                      TI     - 1N4002
0052      00002.000    0972268-0006   DIODE 1N4937 1 AMP                           EA
                                      SEE    - TI DRAWING
0052A                                 CR259,CR260
                                      SEE    - TI DRAWING
0053      00001.000    0972268-0002   DIODE,1N4934,1 AMP                           EA
                                      MOT    - 1N4934
0053A                                 CR211
                                      MOT    - 1N4934
0055      00002.000    0972460-0007   DIODE,SILICON,ZENER 1%                       EA
                                      SEE    - TI DRAWING
0055A                                 CR115,CR202
                                      SEE    - TI DRAWING
0056      00001.000    0972460-0006   DIODE E7918,SILICON,ZENER-1%                 EA
                                      075222-E7918
0056A                                 CR122
                                      075222-E7918
0075      00002.000    0972946-0025   RES FIX 22.0 OHM 5 % .25 W.CARBON FILM       EA
                                      ROH    - R-25
0075A                                 R21,R22
                                      ROH    - R-25
0076      00001.000    0972946-0031   RES FIX 39.0 OHM 5 % .25 W.CARBON FILM       EA
                                      ROH    - R-25
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PART NUMBER    REV        DESCRIPTION..............................
0999947-5101    8A        TERMINAL ELECTRONICS,DIP & AXIAL INSERT

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0076A                              R27
                                   ROH    - R-25
0077      00001.000   0972946-0129 RES FIX 470K OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0077A                              R217
                                   ROH    - R-25
0078      00004.000   0972946-0037 RES FIX 68.0 OHM 5 % .25 W.CARBON FILM    EA
                                   ROH    - R-25
0078A                              R30-R33
                                   ROH    - R-25
0079      00001.000   0972946-0038 RES FIX 75.0 OHM 5 % .25 W.CARBON FILM    EA
                                   ROH    - R-25
0079A                              R9
                                   ROH    - R-25
0080      00003.000   0972946-0041 RES FIX 100  OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0080A                              R13,R138,R255
                                   ROH    - R-25
0081      00001.000   0972946-0043 RES FIX 120  OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0081A                              R19
                                   ROH    - R-25
0083      00001.000   0972946-0047 RES FIX 180  OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0083A                              R8
                                   ROH    - R-25
0084      00001.000   0972946-0050 RES FIX 240  OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0084A                              R16
                                   ROH    - R-25
0085      00001.000   0972946-0051 RES FIX 270  OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0085A                              R208
                                   ROH    - R-25
0086      00003.000   0972946-0053 RES FIX 330  OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0086A                              R120,R121,R23
                                   ROH    - R-25
0087      00006.000   0972946-0057 RES FIX 470  OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0087A                              R14,R15,R17,R18,R250,R261
                                   ROH    - R-25
0088      00001.000   0972946-0058 RES FIX 510  OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0088A                              R26
                                   ROH    - R-25
0090      00004.000   0972946-0065 RES FIX 1.0K OHM 5% .25 W CARBON FILM     EA
                                   ROH    - R-25
0090A                              R10,R12,R28,R126
                                   ROH    - R-25
0091      00009.000   0972946-0072 RES FIX 2.0K OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0091A                              R1,R2,R3,R4,R5,R6,R7,R11,
                                   ROH    - R-25
0091B                              R127
                                   ROH    - R-25
0092      00003.000   0972946-0077 RES FIX 3.3K OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
0092A                              R134,R206,R210
                                   ROH    - R-25
0093      00003.000   0972946-0081 RES FIX 4.7K OHM 5 % .25 W CARBON FILM    EA
                                   ROH    - R-25
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PART NUMBER	REV	DESCRIPTION..............................
0999947-5101	BA	TERMINAL ELECTRONICS,DIP & AXIAL INSERT

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.............................	UM
0093A			R36,R200,R254 ROH - R-25	
0094	00005.000	0972946-0085	RES FIX 6.8K OHM 5 % .25 W CARBON FILM ROH - R-25	EA
0094A			R20,R24,R25,R34,R35 ROH - R-25	
0095	00002.000	0972946-0089	RES FIX 10K OHM 5% .25 W CARBON FILM 1640-2132-000	EA
0095A			R213,R264 1640-2132-000	
0096	00002.000	0972946-0093	RES FIX 15K OHM 5% .25 W CARBON FILM ROH - R-25	EA
0096A			R106,R216 ROH - R-25	
0097	00001.000	0972946-0109	RES FIX 68 K OHM 5 % .25 W CARBON FILM ROH - R-25	EA
0097A			R203 ROH - R-25	
0098	00001.000	0972946-0117	RES FIX 150K OHM 5 % .25 W CARBON FILM ROH - R-25	EA
0098A			R25 ROH - R-25	
0099	00002.000	0972946-0137	RES FIX 1.0M OHM 5 % .25 W CARBON FILM ROH - R-25	EA
0099A			R109,R128 ROH - R-25	
0100	00001.000	0972946-0139	RES FIX 1.2M OHM 5 % .25 W CARBON FILM ROH - R-25	EA
0100A			R220 ROH - R-25	
0101	00001.000	0972946-0145	RES FIX 2.2M OHM 5 % .25 W CARBON FILM ROH - R-25	EA
0101A			R218 ROH - R-25	
0102	00001.000	0972947-0149	RES,FXD,FILM,INSUL, 1/2W, 3.3 MEG OHMS 019345-SEE DRAWING	EA
0102A			R140 019345-SEE DRAWING	
0103	00003.000	0972947-0031	RES FIX 39 OHM 5 % .5 W CARBON FILM ROH - R-50	EA
0103A			R111,R118,R119 ROH - R-50	
0104	00005.000	0972947-0053	RES FIX 330 OHM 5% .5 W CARBON FILM ROH - R-50	EA
0104A			R101,R113,R116,R132,R135 ROH - R-50	
0105	00002.000	0972947-0102	RES FIX 36 K OHM 5% .5 W CARBON FILM ROH - R-50	EA
0105A			R262,R266 ROH - R-50	
0106	00001.000	0972947-0089	RES FIX 10 K OHM 5% .5 W CARBON FILM ROH - R-50	EA
0106A			R253 ROH - R-50	
0107	00001.000	0972947-0137	RES FIX 1.0M OHM 5% .5 W CARBON FILM ROH - R-50	EA
0107A			R229 ROH - R-50	

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PART NUMBER    REV        DESCRIPTION...............................
0999947-5101    BA        TERMINAL ELECTRONICS,DIP & AXIAL INSERT

ITEM.     QUANTITY.   COMPONENT..    DESCRIPTION................................ UM

0109      00001.000   0972947-0109   RES FIX 68 K OHM 5% .5 W CARBON FILM       EA
                                     ROH    - R-50
0109A                                R263
                                     ROH    - R-50
0112      00001.000   0972947-0055   RES FIX 390  OHM 5% .5 W CARBON FILM       EA
                                     ROH    - R-50
0112A                                R207
                                     ROH    - R-50
0114      00001.000   0972947-0072   RES FIX 2.0K OHM 5% .5 W CARBON FILM       EA
                                     ROH    - R-50
0114A                                R252
                                     ROH    - R-50
0115      00001.000   0972947-0038   RES FIX 75   OHM 5% .5 W CARBON FILM       EA
                                     ROH    - R-50
0115A                                R231
                                     ROH    - R-50
0116      00001.000   0972947-0065   RES FIX 1.0K OHM 5% .5 W CARBON FILM       EA
                                     ROH    - R-50
0116A                                R232
                                     ROH    - R-50
0117      00001.000   0972947-0079   RES FIX 3.9K OHM 5% .5 W CARBON FILM       EA
                                     ROH    - R-50
0117A                                R226
                                     ROH    - R-50
0121      00001.000   0539370-0440   RES FIX FILM 3.74K OHM 1% .25 WATT         EA
                                     COR    - NA55
0121A                                R259
                                     COR    - NA55
0122      00001.000   0539370-0405   RES FIX FILM 1.62K OHM 1% .25 WATT         EA
                                     COR    - NA55
0122A                                R221
                                     COR    - NA55
0123      00001.000   0539370-0410   RES FIX FILM 1.82K OHM 1% .25 WATT         EA
                                     COR    - NA55
0123A                                R222
                                     COR    - NA55
0124      00001.000   0539370-0477   RES FIX FILM 9.09K OHM 1% .25 WATT         EA
                                     COR    - NA55
0124A                                R205
                                     COR    - NA55
0125      00001.000   0539370-0479   RES FIX FILM 9.53K OHM 1% .25 WATT         EA
                                     COR    - NA55
0125A                                R204
                                     COR    - NA55
0126      00001.000   0539370-0464   RES FIX FILM 6.65K OHM 1% .25 WATT         EA
                                     COR    - NA55
0126A                                R137
                                     COR    - NA55
0127      00001.000   0539370-0517   RES FIX FILM 23.7K OHM 1% .25 WATT         EA
                                     COR    - NA55
0127A                                R139
                                     COR    - NA55
0128      00005.000   0539370-0481   RES FIX FILM 10.0K OHM 1% .25 WATT         EA
                                     COR    -NA55D-100PPM/C
0128A                                R114,R141,R142,R143,R230
                                     COR    -NA55D-100PPM/C
0129      00001.000   0539370-0558   RES FIX FILM 63.4K OHM 1% .25 WATT         EA
                                     COR    - NA55
0129A                                R122
                                     COR    - NA55
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PART NUMBER	REV	DESCRIPTION................................
0999947-5101	8A	TERMINAL ELECTRONICS,DIP & AXIAL INSERT

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION................................	UM
0131	00001.000	0539371-0594	RES FIX FILM 150K OHMS 1% .13 WATT COR - NC4	EA
0131A			R105 COR - NC4	
0133	00002.000	0539370-0510	RES FIX FILM 20.0K OHM 1% .25 WATT COR -NA55D-100PPM/C	EA
0133A			R115,R260 COR -NA55D-100PPM/C	
0134	00001.000	0539370-0502	RES FIX FILM 16.5K OHM 1% .25 WATT COR - NA55	EA
0134A			R256 COR - NA55	
0135	00001.000	0539370-0539	RES FIX FILM 40.2K OHM 1% .25 WATT COR - NA55	EA
0135A			R123 COR - NA55	
0136	00001.000	0539370-0450	RES FIX FILM 4.75K OHM 1% .25 WATT COR - NA55	EA
0136A			R225 COR - NA55	
0137	00001.000	0539370-0467	RES FIX FILM 7.15K OHM 1% .25 WATT COR - NA55	EA
0137A			R219 COR - NA55	
0140	00001.000	0539812-0064	RESISTOR,8.25K OHM 1/8W .1% FX FILM 001295-MC55C	EA
0140A			R130 001295-MC55C	
0141	00001.000	0539812-0001	RES FIX FILM 4.12K OHM .1% .125 WATT COR - NC4-50PPM/C	EA
0141A			R224 COR - NC4-50PPM/C	
0142	00004.000	0539812-0057	RES FIXED 10K OHMS .1% TI -MC55C	EA
0142A			R129,R131,R214,R223 TI -MC55C	
0143	00001.000	0539812-0066	RES, 11.3K OHMS 1/8W,.1% FXD FILM 001295-SEE DRAWING	EA
0143A			R124 001295-SEE DRAWING	
0147	00021.000	0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20% 1632-0000-000	EA
0147A			C2,C3,C4,C5,C6,C11,C12,C13, 1632-0000-000	
0147B			C14,C16,C17,C18,C19,C20, 1632-0000-000	
0147C			C21,C23,C102,C103,C106, 1632-0000-000	
0147D			C107,C215 1632-0000-000	
0157	00003.000	0972924-0014	CAP FIX TANT SOLID 15 UFD 10% 20 VOLT QPL -M39003/1-2289	EA
0157A			C206,C207,C251 QPL -M39003/1-2289	
0158	00001.000	0972924-0017	CAP FIX TANT SOLID 1.0 MFD 10 % 35 VOLT SPR -150D105X9035A	EA
0158A			C202 SPR -150D105X9035A	
0161	00001.000	0972757-0003	CAP,FIXED CERAMIC 150 PF 10% 50V UC -C51C151K	EA
0161A			C105 UC -C51C151K	

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PART NUMBER   REV       DESCRIPTION.............................
0999947-5101   BA       TERMINAL ELECTRONICS,DIP & AXIAL INSERT

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................. UM

0245      00001.000   0539371-0630   RESISTOR,357K OHMS1/8 W 50 PPM/C           EA

0245A                                R108

0253      00001.000   0539468-0007   DIODE,1N4007 1AMP 1000PIV RECTIFIER        EA
                                     TI     -1N4007
0253A                                CR124
                                     TI     -1N4007
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02/05/83

PART NUMBER    REV       DESCRIPTION............................
0999947-0201    EA       TERMINAL ELECTRONICS, 230 V

ITEM.      QUANTITY.   COMPONENT..  DESCRIPTION...........................  UM

0002        REF        0999945-0001  DIAG,LOGIC,DETAILED TERMINAL ELECT        EA

0022       00001.000   2207625-0009  INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL  EA

0022A                               U9

0023       00001.000   2207625-0010  INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL  EA

0023A                                U10

0025       00002.000   2210363-0001  IC, 1K X 8-BIT STATIC RAM                 EA
                                     0000-0000-000
0025A                                U2,U3
                                     0000-0000-000
0073       00001.000   0999789-0001  TRANSFORMER,SWITCH MODE,820 PWR SUPPLY    EA
                                     GFSMFG-77-484-1
0073A                                T201
                                     GFSMFG-77-484-1
0172       00000.000   0972931-0084  CAPACITOR,2300UF 40V  FX ELCTLT ALUM      EA
                                     056289-604D292G040JS6
0172A                                C203,C204
                                     056289-604D292G040JS6
0183       00002.000   0972808-0001  THERMISTOR, DISC, 5 OHM                   EA
                                     5961-0000-000
0183A                                R274,R275
                                     5961-0000-000
0188       00001.000   0999869-0002  CABLE ASSY,SIGNAL/CHASSIS,GROUND-OPTION   EA
                                     1221-2869-027
0224       00000.300   0411400-0022  WIRE 22AWG ELETRO-TIN-PLATED,COPPER       FT
                                     -    -     -000
0240       00001.000   0999947-0001  TERMINAL ELECTRONICS COMMON               EA
                                     1221-7947-080
9999       00003.000   0239999-9999  COST, SHRINKAGE                           EA
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02/05/83

PART NUMBER   REV       DESCRIPTION............................
0999947-0401   BA       TERM ELECTRONICS, 230V (BPO)

ITEM.    QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0002      REF       0999945-0001   DIAG,LOGIC,DETAILED TERMINAL ELECT          EA

0022     00001.000  2207625-0009   INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL    EA

0022A                              U9

0023     00001.000  2207625-0010   INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL    EA

0023A                              U10

0025.    00002.000  2210363-0001   IC, 1K X 8-BIT STATIC RAM                   EA
                                   0000-0000-000
0025A                              U2,U3
                                   0000-0000-000
0073     00001.000  0999892-0001   TRANSFORMER,SWITCHMODE,SCREENED,230VAC      EA
                                   GFSMFG-78-491-1
0073A                              T201
                                   GFSMFG-78-491-1
0172     00000.000  0972931-0084   CAPACITOR,2300UF 40V  FX ELCTLT ALUM        EA
                                   056289-604D292G040JS6
0172A                              C203,C204
                                   056289-604D292G040JS6
0183     00002.000  0972808-0001   THERMISTOR, DISC, 5 OHM                     EA
                                   5961-0000-000
0183A                              R274,R275
                                   5961-0000-000
0223     00000.200  0411400-0018   WIRE,BARE TINNED,18AWG, COPPER BUS          FT
                                   IWP   -18-630
0224     00000.300  0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER         FT
                                   -   -    -000
0240     00001.000  0999947-0001   TERMINAL ELECTRONICS COMMON                 EA
                                   1221-7947-080
9999     00003.000  0239999-9999   COST, SHRINKAGE                             EA
```

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999947-0801    EA        TERMINAL ELECTRONICS, 115V KATAKANA

ITEM.      QUANTITY.    COMPONENT..  DESCRIPTION.........................  UM

0002        REF         0999945-0001   DIAG,LOGIC,DETAILED TERMINAL ELECT          EA

0021       00001.000    0999906-0002   IC,4KX8 ROM,KATAKANA DOTS                   EA

0021A                                  U11

0022       00001.000    0999905-0003   INTEGRATED CIRCUIT,8KX8 ROM,KATAKANA #3     EA

0022A                                  U9

0023       00001.000    0999905-0004   INTEGRATED CIRCUIT,8KX8 ROM,KATAKANA #4     EA

0023A                                  U10

0025       00002.000    2210363-0001   IC, 1K X 8-BIT STATIC RAM                   EA
                                       0000-0000-000
0025A                                  U2,U3
                                       0000-0000-000
0073       00001.000    0999789-0001   TRANSFORMER,SWITCH MODE,820 PWR SUPPLY      EA
                                       GFSMFG-77-484-1
0073A                                  T201
                                       GFSMFG-77-484-1
0172       00000.000    0972931-0084   CAPACITOR,2300UF 40V  FX ELCTLT ALUM        EA
                                       056289-604D292G040JS6
0172A                                  C203,C204
                                       056289-604D292G040JS6
0183       00002.000    0972808-0001   THERMISTOR, DISC, 5 OHM                     EA
                                       5961-0000-000
0183A                                  R272,R273
                                       5961-0000-000
0188       00001.000    0999869-0002   CABLE ASSY,SIGNAL/CHASSIS,GROUND-OPTION     EA
                                       1221-2869-027
0224       00000.200    0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER         FT
                                       -    -     -000
0240       00001.000    0999947-0001   TERMINAL ELECTRONICS COMMON                 EA
                                       1221-7947-080
9999       00003.000    0239999-9999   COST, SHRINKAGE                             EA
```

DWG NO	SH
2208265	1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN483440 (D) [illegible] LM CHGS, RENUMBERED		
B	CN478691 (E) [illegible] LM UPDATES	6/25/81	
C	CN 494033 (E) [illegible] LM UPDATE	6/30/81	
D	CN473174 (D) [illegible] LM AND DRAWING UPDATE	10/30/81	
E	CN 457578 (C) L HAMPTON 1) LM-1 ADD IT 363 (2) NOTE 9 ADD IT 134, 3) NOTE 16 MAKE FLAG NOTE (4) ADD NOTES 16 & 17 TO PROC 2 (5) SH 2 ADD CMPT SYM TO FOLLOWING REF DESG R6, CR220, E3, E4, E206, E207, E208 (6) SH2 CHG POLAR OF DIODES CR126, CR130, CR132, CR 36, CR137 (7) SH2 ZC-5 REF DESG E211 WAS E212 (8) SH2 ZB-7, B-5 ADD IT 298 (9) SH2 ZC-6 NOTE 14 WAS ON REF DES E222 (9) ZC-6 DELE WIRE E268 (10) UPDATE REV LEVEL BLK	11/24/81	
F	CN477584 (C) Max Johnson 1) UPDATE LM & REV LEVEL BLOCK	12-22-81	
G	CN 477540 (D) L. MOLINA (1) LM-1 IT #0313...1.000 (2) LM-1 ADD IT 364, 365 (3) LM-1 IT #322...1 (4) NOTE 13 WAS.. TOGETHER (ITS 313 + 314) BEFORE... (5) NOTE 18 WAS...IT 313) WILL BE...	7/20/82	
H	CN477373 (C) Max Johnson 1) LM-0101; 0201; 0401; 0601. & -0111 ADD IT 426 P/N 2210363-1 2.) LM-0105 0205 0405 & 0605 DEL IT 426 P/N 2210363-1	2-1-82	

02

NOTES: UNLESS OTHERWISE SPECIFIED:

1. ALL DIMENSIONS ARE IN MILLIMETERS
2. GENERAL TOLERANCES:
   ONE PLACE DECIMALS = ± 0.5
   TWO PLACE DECIMALS = ± 0.25
3. MARK SITE AND DATE CODE IN POSITION INDICATED PER ITEM 360 PARAGRAPH 4.0 AND PROCESS 1
4. MARK APPROPRIATE DASH NUMBER AND REVISION LETTER PER PROCESS 1
5. INSTALL SELF-CLINCHING STUDS (ITEM 342) AND STAKE PINS (ITEM 340) BEFORE PROCESS 2
6. INSTALL JUMPER PLUGS (ITEM 316) BETWEEN THE FOLLOWING E3-E4, E5-E6, E205-E206, E207-E208, E209-E210, E211-E212, E213-E214, E215-E216, E219-E220, E234-E235
7. INSTALL TEST SOCKET (ITEM 412) FROM BOTTOM SIDE OF BOARD AND SECURE PER PROCESS 3 -0105, -0205, -0405, -0605
8. SECURE TOROID (ITEM 291) AND COMPLETE ELECTRICAL CONNECTIONS USING BUS WIRE (ITEM 321) FROM E254 TO E255, E256 TO E257 E258 TO E259, E260 TO E261, E250 TO E251 AND E252 TO E253. PER PROCESS 3
9. FOR 220 VAC ASSEMBLY (-0201, -0205, -0401, -0405, -0601 AND -0605) INSTALL CR263 AND CR264 (ITEM 410) AND REMOVE R268 (ITEM 134)
10. MAX LEAD LENGTH BELOW SURFACE OF BOARD 1.7
11. ITEMS 260, 262, 263, 264, 265, 266, 267 ARE TO BE PREPPED FOR STANDOFF
12. TIGHTEN TRANSISTORS MOUNTING HARDWARE TO 0.56 ± 0.06 NM
13. TIGHTEN HEATSINK MOUNTING HARDWARE TO 0.56 ± 0.06 NM AND INSTALL CLIP (ITEM 322) TO SECURE HEATSINKS TOGETHER (ITEMS 364, 365 AND 314) BEFORE PROCESS 2
14. INSTALL CABLE (ITEM 315) PER PROCESS 3 TO E221. MAKE CONNECTOR END TO E223 EXCEPT ON ICS OPTION, THEN TO E222
15. FOR -0401 ASSEMBLY INSTALL R269 (ITEM 413) PER PROCESS 3. MAKE CABLE (ITEM 315) CONNECTOR TO E223
16. SECURE CAPS (ITEMS 280 & 282) C258, C259 AND C203 WITH STRAPS (ITEM 320) AFTER PROCESS 2
17. INSTALL BATTERY (ITEM 311) BEFORE PROCESS 2
18. INSTALLED HEIGHT OF HEATSINK (ITEMS 364 & 365) WILL BE 2.5 MINIMUM AND 5.1 MAXIMUM ABOVE PRINTED CIRCUT BOARD ALONG ENTIRE LENGTH
19. CAUTION: THIS ASSEMBLY AND CERTAIN COMPONENTS ARE SUSCEPTIBLE TO DAMAGE FROM ELECTROSTATIC DISCHARGE. OPERATOR AND EQUIPMENT GROUNDING AND PROTECTIVE PACKAGING IS REQUIRED STATIC SENSITIVE COMPONENTS ARE: U1, U3 THRU U10, U13, U15, U16, U18 THRU U22, U25 THRU U36, U40 THRU U44, U101 THRU U105, U107, U108, U110 U113, U201, U202, U204, U205, U206, CR1, CR2, CR101 THRU CR144, CR146, U111, U112, CR201 THRU CR209, CR211 THRU CR215, CR220 THRU CR223, CR250 THRU CR254, CR256, CR257, CR258, CR260, CR261, CR265, CR266, CR276, Q4, Q5, Q101, Q104 THRU Q111, Q113 THRU Q117, Q119, Q201, Q203 THRU Q206, Q250 THRU Q254

PART NUMBER	DESCRIPTION
2208265-0605	TERMINAL ELECTRONICS, 825-220 VAC, EUROPEAN
2208265-0405	, 825-220 VAC, BPO
2208265-0205	, 825-220 VAC
2208265-0105	, 825-115 VAC
2208265-0601	, 820-220 VAC, VDE
2208265-0401	, 820-220 VAC, BPO
2208265-0201	, 820-220 VAC
2208265-0111	, 820-115 VAC, KATA KANA
2208265-0101	, 820-115 VAC, DOMESTIC
2208265-0001	TERMINAL ELECTRONICS, 820-BASIC

CONVERSION CHART	
mm	INCHES
0.25	.010
0.5	.02
1.5	.06
1.7	.07
2.39	.94
2.5	.10
5.1	.20
NM	INLB
0.56 ± 0.06	5.00 ± .50

METRIC

SEQ NO	IDENT	F SPEC	NO	ADDITIONAL
3	SLDR	127-02	00	
2	SLDR	24-02	00	
1	MARK	102-01	01	HGT 1.5 CLK BLK, (CAT 5)
	PROCESS		CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS. SEE TI DRAWING 729467

NOTES: 7 8 16 14 15 17 5 13 3 4

REVISION LEVEL BLOCK										
ASSEMBLY	2208265-0001	A	B	C	D	E	F	G	H
PWB	2208266-0001	A	A	B	C	C	C	D	D
DIAGRAM	2208267-0001	*	*	*	A	A	A	A	A

REV STATUS OF SHEETS			
REV	H	G	G
SH	1	2	3

THIRD ANGLE PROJECTION

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2206541	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- ~~DIMENSIONS ARE IN INCHES~~ 1
- TOLERANCES: ANGLES ±1° ~~1 PLACE DECIMALS ± .010~~ ~~2 PLACE DECIMALS ± .02~~ 2
- INTERPRET DRAWING PER MIL D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- ~~CONCENTRICITY MACHINED DIAMETERS .010 FIM~~
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

~~.013 THRU .125 + .004 - .001~~	~~.126 THRU .250 + .005 - .001~~	~~.251 THRU .500 + .006 - .001~~
~~.501 THRU .750 + .008 - .001~~	~~.751 THRU 1.000 + .010 - .001~~	~~1.001 THRU 2.000 + .012 - .001~~

		DATE
DWN	[illegible]	3 APRIL 81
CHK	[illegible]	25 JUNE 81
ENGR	[illegible]	
APVD	[illegible]	6/8/81
QA	[illegible]	
CONTR	[illegible]	
RLSE	[illegible]	6/ /81

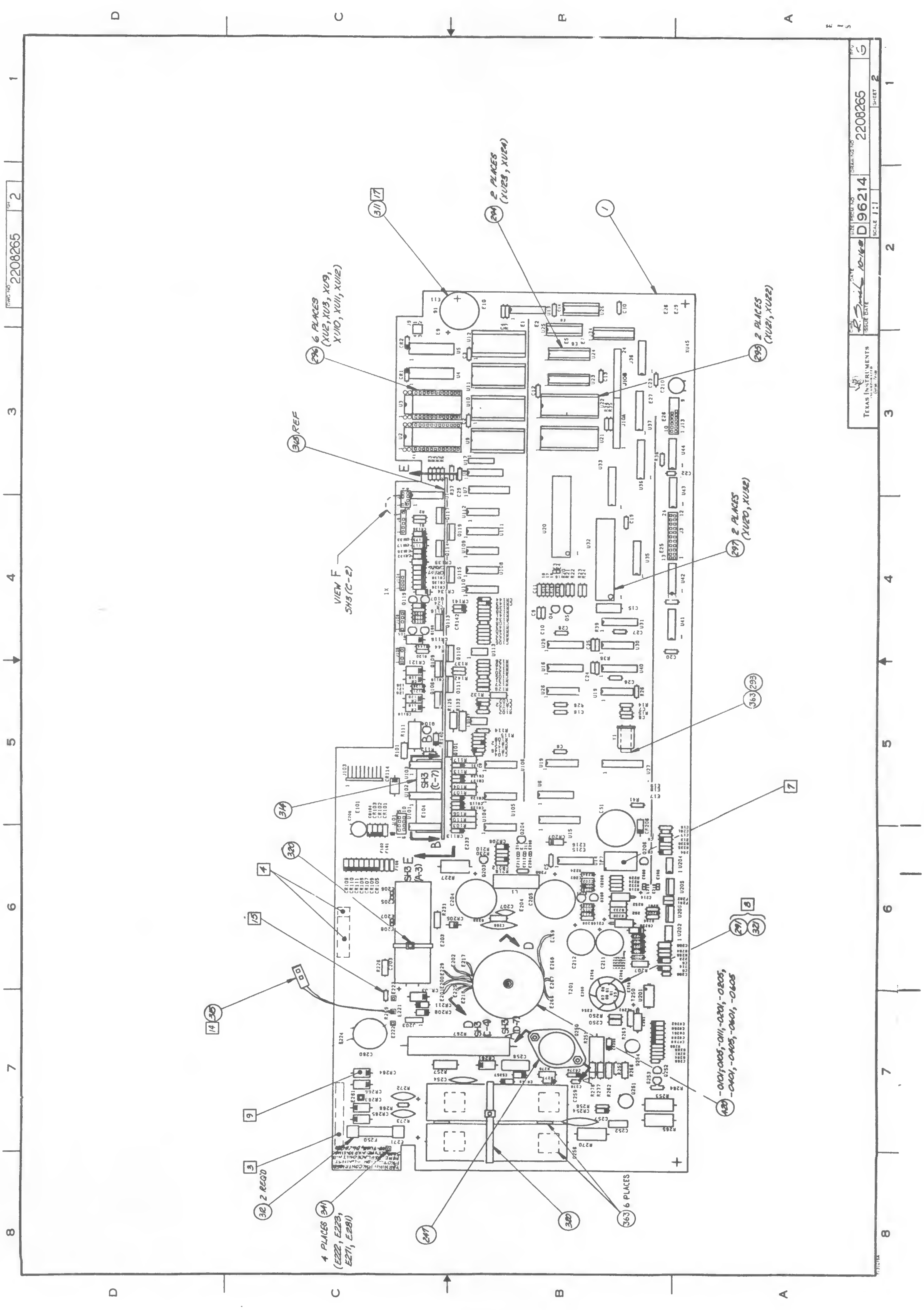
TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

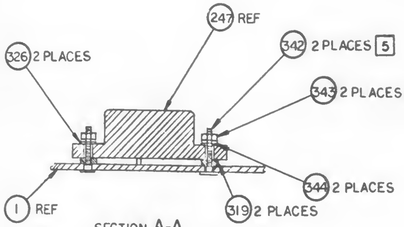
TERMINAL ELECTRONICS,
820-BASIC

SIZE	FSCM NO	DRAWING NO
D	96214	2208265

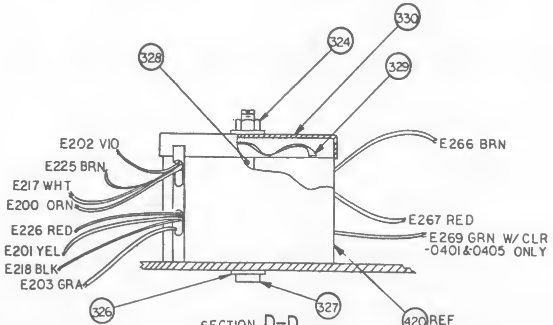
SCALE NONE SHEET 1 OF 3

320 LM

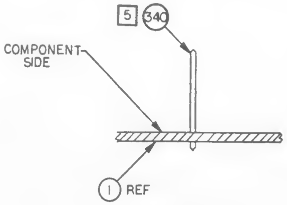
2208265
2
TEXAS INSTRUMENTS
INCORPORATED
DWN R. Smith
DATE 10-16-80
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2208265
REV G
SCALE 1:1
SHEET 2
6 PLACES (XU2, XU3, XU9, XU10, XU11, XU12)
2 PLACES (XU23, XU24)
2 PLACES (XU21, XU22)
2 PLACES (XU20, XU32)
VIEW F SH3(C-2)
365 REF
311 17
314
320
4
15
14 315
9
3
312 2 REQD
4 PLACES 341 (E222, E223, E271, E281)
249
320
363 6 PLACES
363 293
7
291 8 321
-0101, 0105, -0111, -0201, -0205, -0401, -0405, -0601, -0605
SH3 (C-7)
SH3 E (A-3)
SH3 (C-4)
SH3 (D-7)
A
B
C
D
E
1
2
3
4
5
6
7
8



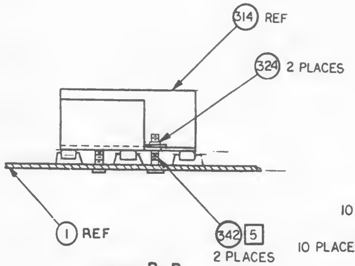
SECTION A-A
SH 2 (C-7)



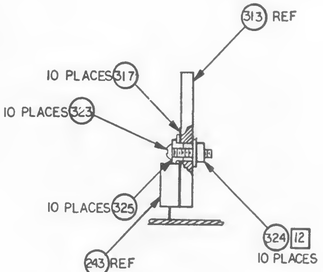
SECTION D-D
SH2 (C-7)



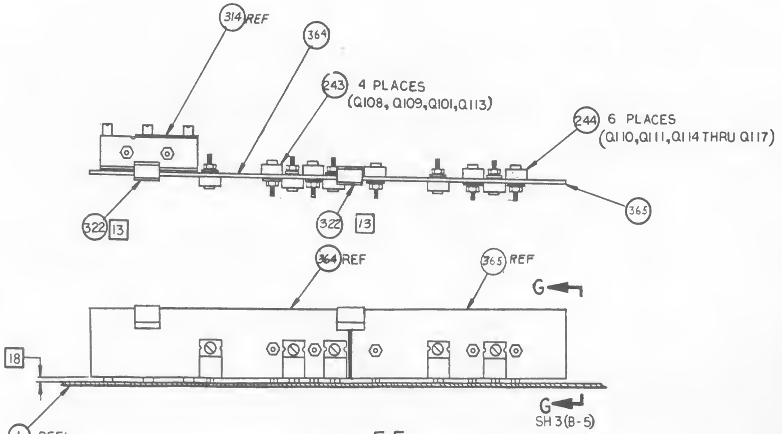
VIEW F
SH 2 (C-4)
103 PLACES



SECTION B-B
SH2 (C-5)



VIEW G-G
SH 3 (A-2)



SECTION E-E
SH 2 (C-6)

TEXAS INSTRUMENTS INCORPORATED	DWN L HAMPTON	DATE 8 APRIL '81	SIZE D	FSCM NO 96214
	ISSUE DATE		SCALE NONE	
DRAWING NO 2208265	REV G	SHEET 3		

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
2208265-0101    Y         TERMINAL ELECTRONICS, 820 - 115 VAC, DCM

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0400      00001.000  2208265-1000   TERMINAL ELECTRONICS-STANDARD              EA
                                    1221-0050-001
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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
2208265-1000    Y         TERMINAL ELECTRONICS-STANDARD

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0400      00001.000  2208265-0001   TERMINAL ELECTRONICS, 820 - BASIC          EA
                                    1221-7265-027
0401      00001.000  2207625-0009   INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL   EA

0401A                               U9

0402      00001.000  2207625-0010   INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL   EA

0402A                               U10

0420      00001.000  2217351-0001   XFORMER, SWITCHMODE, 820                   EA
                                    5950-3750-000
0420A                               T201
                                    5950-3750-000
0421      00000.000  0999789-0001   TRANSFORMER,SWITCH MODE,820 PWR SUPPLY     EA
                                    GFSMFG-77-484-1
0421A                               *ALTERNATE FOR ITEM 420,
                                    GFSMFG-77-484-1
0421B                               *WHEN ITEM 421 IS USED.
                                    GFSMFG-77-484-1
0421C                               *ITEMS 422 THRU 425 MUST BE
                                    GFSMFG-77-484-1
0421D                               *USED & F201,F202, & CR214
                                    GFSMFG-77-484-1
0421E                               *DELETED
                                    GFSMFG-77-484-1
0422      00000.000  0972499-0002   NETWORK,VOLG REG,NEG,3 TERM-(-12V)         EA

0422A                               U206 (1EA)

0423      00000.000  0972872-0012   NETWORK,LM 340-12T VOLTAGE REGULATOR       EA
                                    NSC    - LM340-12T
0423A                               U205 (1EA)
                                    NSC    - LM340-12T
0424      00000.000  0972924-0014   CAP FIX TANT SOLID 15 UFD 10% 20 VOLT      EA
                                    QPL    -M39003/1-2289
0424A                               C214,C215 (2EA)
                                    QPL    -M39003/1-2289
0425      00000.000  0539468-0002   DIODE,1N4002 1AMP  100PIV RECTIFIER        EA
                                    TI     - IN4002
0425A                               CR223 (1EA)
                                    TI     - IN4002
9999      00000.000  0239999-9999   COST, SHRINKAGE                            EA
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2208265-0001    Y         TERMINAL ELECTRONICS, 820 - BASIC

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION.............................. UM

0201      00001.000   2208265-5001   TERMINAL ELECTRONICS AXIAL & AUTO INSERT  EA
                                     1221-5265-027
0202       REF        2208267-0001   DIAGRAM,LOGIC,DETAILED,820 TERMINAL ELEC  EA

0205      00001.000   2210301-0001   IC, MICROPROCESSOR, CPU                   EA
                                     056708-Z80A-CPU-PS
0205A                                U20
                                     056708-Z80A-CPU-PS
0206      00001.000   2211142-0002   IC,Z80A-DART-PS                           EA
                                     SEE TI- DRAWING
0206A                                U32
                                     SEE TI- DRAWING
0207      00002.000   2210302-0001   IC, COUNTER TIMER CKT,28 PIN CERAMIC PKG  EA
                                     056708-Z80A-CTC
0207A                                U21,U22
                                     056708-Z80A-CTC
0208      00002.000   0996203-0002   IC,S 5101L-1 1024BIT(256 X 4)ST CMOS RAM  EA
                                     034649-S5101L-1
0208A                                U4,U5
                                     034649-S5101L-1
0209      00001.000   0996952-0002   2K X 8-BIT STATIC RAM,200NS,PLASTIC       EA
                                     MK4802-N-3
0209A                                U3
                                     MK4802-N-3
0210      00002.000   0996089-0004   IC,SN74LS244N LINE DRIVER                 EA
                                            -SN74LS244N
0210A                                U33,U34
                                            -SN74LS244N
0211      00005.000   0996029-0001   IC,SN74LS273N OCTAL D-TYPE FLIP/FLOP      EA
                                     TI     -SN74LS273N
0211A                                U7,U15,U27,U36,U37
                                     TI     -SN74LS273N
0212      00001.000   2220148-0001   IC,ISOLATOR,OPTICALLY COUPLED,6.0 KV      EA
                                     SEE TI- DRAWING
0212A                                U201
                                     SEE TI- DRAWING
0213      00001.000   0996727-0002   IC,ULN2065B.DARLINGTON QUAD               EA
                                     056289-ULN2065B
0213A                                U101
                                     056289-ULN2065B
0214      00002.000   2211355-0001   IC,ULN-2075B,QUAD DARLINGTON DRIVERS      EA
                                     5915-0000-000
0214A                                U102,U103
                                     5915-0000-000
0222      00004.000   0972164-0006   DIODE,3 AMP 1,000V SILICONE               EA
                                     004713-MR510
0222A                                CR263,CR264,CR265,CR266
                                     004713-MR510
0223      00006.000   0996036-0003   DIODE,3 AMP 100V RECTIFIER                EA
                                     004713-MR 851
0223A                                CR114,CR116,CR118,CR119
                                     004713-MR 851
0223B                                CR120,CR121
                                     004713-MR 851
0224      00001.000   0996036-0004   DIODE,MR852 RECTIFIER SILICON FAST RCVY   EA
                                     004713-MR852
0224A                                CR203
                                     004713-MR852
0225      00001.000   0996036-0006   DIODE,MR856 RECTIFIER SILICON FAST RCVY   EA
                                     004713-MR856
0225A                                CR261
                                     004713-MR856
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2208265-0001    Y         TERMINAL ELECTRONICS, 820 - BASIC

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION.......................... UM

0226      00001.000   0996281-0006   RECTIFIER,SS3892/UES1302,V(R)100V I(O)6A  EA
                                     014099-SS3892
0226A                                CR205
                                     014099-SS3892
0227      00001.000   0972118-0001   DIODE, IN5339B                            EA

0227A                                CR207

0228      00002.000   0972118-0005   SEMICONDUCTOR DEVICE,DIODE-1N5350B        EA
                                     004713-1N5350B
0228A                                CR206,CR220
                                     004713-1N5350B
0229      00004.000   0801295-0084   SEMICONDUCTOR DEVICE,DIODE 1N5360B 5W     EA
                                     004713-1N5360B
0229A                                CR117,CR133,CR134,CR139
                                     004713-1N5360B
0230      00001.000   0539468-0002   DIODE,1N4002 1AMP  100PIV RECTIFIER       EA
                                     TI     - IN4002
0230A                                CR256
                                     TI     - IN4002
0231      00001.000   0972118-0002   DIODE, 43VV, ZENER, 5 WATT                EA
                                     1N5367-B
0231A                                CR225
                                     1N5367-B
0240      00001.000   2211417-0001   TRANSISTOR,2N5638,JFET,N-CHANNEL          EA
                                     SEE TI- DRAWING
0240A                                Q201
                                     SEE TI- DRAWING
0241      00004.000   2211416-0002   TRANSISTOR,A8T2907A, PNP                  EA
                                     SEE TI- DRAWING
0241A                                Q203,Q204,Q206,Q253
                                     SEE TI- DRAWING
0242      00001.000   0972542-0001   TRANSISTOR,HV PNP FN5416/S41802           EA
                                     -       -
0242A                                Q251
                                     -       -
0243      00004.000   0996712-0001   TRANSISTOR,TIP105 P-N-P POWER             EA
                                     001295-TIP105
0243A                                Q101,Q108,Q109,Q113
                                     001295-TIP105
0244      00006.000   0996801-0001   TRANSISTOR,T1P100 N-P-N,DARLINGTON        EA
                                     001295-T1P100
0244A                                Q110,Q111,Q114,Q115,Q116
                                     001295-T1P100
0244B                                Q117
                                     001295-T1P100
0245      00001.000   0972956-0001   TRANSISTOR, NPN,HIGH CURRENT SW TO-5      EA
                                     TI     - 2N3725A
0245A                                Q254
                                     TI     - 2N3725A
0246      00001.000   2211475-0001   TRANSISTOR,MPS2369, NPN, SWITCHING        EA
                                     5961-2110-000
0246A                                Q5
                                     5961-2110-000
0247      00001.000   0996703-0001   TRANSISTOR,2N6545 NPN, 125 WATT POWER     EA
                                     -      -SEE DRAWING
0247A                                Q250
                                     -      -SEE DRAWING
0248      00001.000   0800257-0001   TRANSISTOR, MPS 3640, PNP, SWITCHING      EA
                                     004713-MPS3640
0248A                                Q4
                                     004713-MPS3640
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV       DESCRIPTION.............................
2208265-0001    Y        TERMINAL ELECTRONICS, 820 - BASIC

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION............................  UM

0249      00006.000    2211415-0002   TRANSISTOR,2222A,NPN,SOLDERABLE            EA
                                      5961-2200-000
0249A                                 Q104,Q105,Q106,Q107,Q119
                                      5961-2200-000
0249B                                 Q252
                                      5961-2200-000
0260      00001.000    0972978-0149   RESISTOR,.10 MEG OHM 1W 5% FIXED CMPSN     EA
                                            -RCR32G104JS
0260A                                 R257
                                            -RCR32G104JS
0261      00001.000    0538425-0074   RES,FXD, 300 OHMS 2W,5%, COMPOSITION       EA
                                      5905-0000-000
0261A                                 R111
                                      5905-0000-000
0262      00002.000    0538425-0119   RESISTOR,22K OHMS  2W  5% FIXED CMPSN      EA
                                            -RCR42G223JS
0262A                                 R265,R270
                                            -RCR42G223JS
0263      00001.000    0538425-0123   RES  33000. OHM 5% 2WATT FIX COMP          EA
                                      RCR   -42G333JS/QPL39
0263A                                 R253
                                      RCR   -42G333JS/QPL39
0264      00001.000    0538425-0078   RES, 430 OHMS, 2W, 5% COMPOSITION          EA
                                      5905-0000-000
0264A                                 R227
                                      5905-0000-000
0265      00001.000    0972554-0011   RESISTOR,.25 OHM 3W 1%  FX WW              EA
                                      001686-TR-2A
0265A                                 R125
                                      001686-TR-2A
0266      00001.000    0972554-0006   RESISTOR,FIXED,WIREWOUND .5 OHM 3W 1%      EA
                                      SEE   - TI DRAWING
0266A                                 R133
                                      SEE   - TI DRAWING
0267      00001.000    0972942-0190   RESISTOR,.5 OHM 5W 5% FX,WW  PWR           EA

0267A                                 R251

0268      00001.000    2211372-0004   RESISTOR,1000 OHM,22W,10PCT                EA
                                      SEE.TI- DRAWING
0268A                                 R267
                                      SEE TI- DRAWING
0269      00002.000    0972808-0002   THERMISTOR DISK,5-OHM,6-AMPERES            EA

0269A                                 R272,R273

0270      00001.000    0972946-0072   RES FIX 2.0K OHM 5 % .25 W CARBON FILM     EA
                                      ROH   - R-25
0270A                                 R252
                                      ROH   - R-25
0271      00001.000    0972947-0091   RES FIX 12 K OHM 5% .5 W CARBON FILM       EA
                                      ROH   - R-50
0271A                                 R262
                                      ROH   - R-50
0272      00001.000    0972947-0127   RES FIX 390K OHM 5% .5W CARBON FILM        EA
                                      ROH   - R-50
0272A                                 R266
                                      ROH   - R-50
0275      00001.000    0972928-0011   CAP FIX MICA 500V 3000 PF 5 %              EA
                                      039001-CMR06F302JOD
0275A                                 C256
                                      039001-CMR06F302JOD
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2208265-0001    Y         TERMINAL ELECTRONICS, 820 - BASIC

ITEM.      QUANTITY.    COMPONENT..  DESCRIPTION............................. UM

0276       00001.000   0996810-0007   CAPACITOR,3900PF 400V 20% CER,DIN TYPE     EA
                                      DRALOR-SDPJ18400VN
0276A                                 C260,
                                      DRALOR-SDPJ18400VN
0277       00001.000   0410529-0103   CAP FIX CERAMIC .010  MF GMV  1 KV         EA
                                      CRL    - DD-103
0277A                                 C254
                                      CRL    - DD-103
0278       00003.000   0410529-0102   CAP FIX CERAMIC .001  MF 10%  1 KV         EA
                                      CRL    - DD-102
0278A                                 C207,C209,C210
                                      CRL    - DD-102
0279       00002.000   0412645-0015   CAPACITOR,.1 UF +80,-20% 500VDC CER DIEL   EA
                                      1222-3866-000
0279A                                 C208,C257
                                      1222-3866-000
0280       00002.000   0972601-0004   CAPACITOR,330UF 200V 10% ALUM ELECTLT      EA
                                      090201-TCW331N200N3C3
0280A                                 C258,C259
                                      090201-TCW331N200N3C3
0281       00002.000   2211344-0001   CAP,470 UF, 20 VDC, AL ELECT.              EA
                                      5910-0821-000
0281A                                 C211,C212
                                      5910-0821-000
0282       00001.000   0996615-0003   CAPACITOR,1500 UF 40VDC 10% ELECTROLYTIC   EA
                                      000853-301HP152-U040B
0282A                                 C203
                                      000853-301HP152-U040B
0283       00002.000   2211499-0013   CAP,2200UF,35WVDC                          EA
                                      SEE TI- DRAWING
0283A                                 C204,C205
                                      SEE TI- DRAWING
0284       00001.000   0972927-0020   CAP FIX MICA 500V 51.0 PF 5 %              EA
                                      SEE TI- DRAWING
0284A                                 C252
                                      SEE TI- DRAWING
0285       00001.000   0972924-0014   CAP FIX TANT SOLID 15 UFD 10% 20 VOLT      EA
                                      QPL    -M39003/1-2289
0285A                                 C251
                                      QPL    -M39003/1-2289
0290       00001.000   0416434-0303   FUSE  3.0 A 250V 3AG                       EA
                                      LIT    - 312003
0290A                                 F250
                                      LIT    - 312003
0291       00001.000   0996873-0001   TOROID CORE                                EA
                                      090797-ZF-42206-TC
0291A                                 T250
                                      090797-ZF-42206-TC
0292       00001.000   2210858-0001   BUZZER, PIEZOELECTRIC                      EA
                                      SEE TI- DRAWING
0292A                                 DS1
                                      SEE TI- DRAWING
0293       00001.000   0538031-00[illegible]   CRYSTAL UNIT QUARTZ 8.00 MHZ .005%         EA
                                      5955-2000-000
0293A                                 Y1
                                      5955-2000-000
0294       00002.000   2210188-0014   SOCKET,DIP,20-PIN,LOW PROFILE              EA
                                      SEE T -I DRAWING
0294A                                 XU23,XU24
                                      SEE T -I DRAWING
0295       00002.000   2210188-0017   SOCKET,DIP,28-PIN,LOW PROFILE              EA
                                      SEE T -I DRAWING
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PART NUMBER    REV       DESCRIPTION...........................
2208265-0001    Y        TERMINAL ELECTRONICS, 820 - BASIC

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION.............................. UM

0295A                               XU21,XU22
                                    SEE T -I DRAWING
0296      C0006.000   2210188-C016  SOCKET,DIP,24-PIN,LOW PROFILE               EA
                                    SEE T -I DRAWING
0296A                               XU2,XU3,XU9,XU10,XU11,XU12
                                    SEE T -I DRAWING
0297      00001.000   2210188-0018  SOCKET,DIP,40-PINS,LOW PROFILE              EA
                                    SEE T -I DRAWING
0297A                               XU32
                                    SEE T -I DRAWING
0298      00001.000   0996865-0005  HEADER ASSY,9 POS RIGHT ANGLE,.100          EA
                                    000779-640099-9
0298A                               J103
                                    000779-640099-9
0299      000C2.000   0972519-0023  SOCKET,SINGLE-IN-LINE 12 POS(GOLD CONT)     EA
                                          -1-583780-5
0299A                               J10A,J10B
                                          -1-583780-5
0310      00001.000   2211303-0009  INDUCTOR FIXED 8.5UH,RADIAL LEAD            EA
                                    SEE TI- DRAWING
0310A                               L1
                                    SEE TI- DRAWING
0311      00001.000   2211407-0001  BATTERY,LITHIUM                             EA
                                    SEE TI- DRAWING
0311A                               B1
                                    SEE TI- DRAWING
0312      0C002.000   0772635-0001  CLIP,FUSE                                   EA
                                    LIT   -102068
0313      0C000.C00   2208271-0C01  HEATSINK,CARRIAGE DRIVER-PAPER DRIVER       EA
                                    1684-1271-006
0313A                               ALTERNATE FOR ITEMS
                                    1684-1271-006
0313B                               364 TO 365
                                    1684-1271-006
0314      00001.C00   0999863-0001  HEATSINK,PRINTHEAD/RIBBON DRIVE MOTOR       EA
                                    1684-1863-013
0315      000C1.C0C   0999869-0002  CABLE ASSY,SIGNAL/CHASSIS,GROUND-OPTION     EA
                                    1221-2869-027
0316      0C010.C0C   0972487-0001  JUMPER PLUG,CONNECTOR BLACK                 EA
                                    5935-0900-000
0317      0C010.000   0996521-0018  INSULATOR,THERMALLY CONDUCTIVE,.800 W       EA
                                    055285-SEE TI DWG
0319      00002.C00   0416925-0600  SPACERS-SCREW & BOLT #6 1/4 X.049           EA
                                          - NAS43DD1-8
0320      00002.C00   0972632-0C05  STRAP,TIE DOWN,CABLE-NON-STANDARD           EA
                                    PND    - 5ST3I
0321      0C0C0.750   0411400-0022  WIRE 22AWG ELETRO-TIN-PLATED,COPPER         FT
                                    -    -     -000
0322      000C2.000   2211457-0C01  CLIP,U-TYPE,SPRING STEEL                    EA
                                    SEE TI- DRAWING
0323      0C010.C00   0972988-0014  SCREW 4-40 X .312 PAN HEAD CRES             EA

0324      00013.C00   2210006-0001  ASSY,HEX NUT,LOCKWASHERS, 4-40              EA
                                    092550-SEE DRAWING
0325      0C010.000   0972628-0C01  WASHER,#4 .115ID .200OD-SHLDR NON-MET       EA
                                    SEA    -5607-45
0326      00003.C00   0411027-0803  WASHER .125 X .250 X .022 FLAT CRES         EA
                                    QPL    - MS15795-803
0327      000C1.C00   0972988-0023  SCREW 4-40 X 1.50 PAN HEAD CRES             EA
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LIST OF MATERIALS

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PART NUMBER	REV	DESCRIPTION............................
2208265-0001	Y	TERMINAL ELECTRONICS, 820 - BASIC

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0328	00001.000	0416925-0417	SPACERS-SCREW AND BOLT #4 3/16 X .028 -NAS43DD-76	EA
0329	00001.000	0972621-0001	SPRING,RING FER -991-191-00	EA
0330	00001.000	0972306-0003	COVER,RND-1.807LG .019THK ALUM,SEAMLESS 002875-HU-2900CK-AL	EA
0340	00100.000	0972456-0002	PIN,.025 SQUARE 5935-0800-000	EA
0340A			E3,E4,E5,E6,E7,E17 5935-0800-000	
0340B			E18,E19,E205 THRU E216,E219 5935-0800-000	
0340C			E220,E234,E235 5935-0800-000	
0340D			J3-1 THRU J3-6 5935-0800-000	
0340E			J3-8 THRU J3-24 5935-0800-000	
0340F			J6-1 THRU J6-4,J6-6 5935-0800-000	
0340G			J9-2,J9-3,J9-4 5935-0800-000	
0340H			J13-1 THRU J13-7 5935-0800-000	
0340I			J13-9 THRU J13-15,J13-18 5935-0800-000	
0340J			J101-2 THRU J101-10 5935-0800-000	
0340K			J104-1 THRU J104-4 5935-0800-000	
0340L			J105-1,J105-2,J105-4 5935-0800-000	
0340M			J106-1,J106-3 THRU J106-5 5935-0800-000	
0340N			J203-1,J203-2,J203-4 5935-0800-000	
0340O			J8-1,J8-3 THRU J8-8 5935-0800-000	
0341	00004.000	0996706-0002	POST, .715LG PRINTED CIRCUIT 000779-1-86147-8	EA
0341A			E222,E223,E271,E281 000779-1-86147-8	
0342	00004.000	0972355-0003	STUD,CLINCH,.375 LONG,BRONZE 046384-KFH-440-6	EA
0343	00002.000	0416453-0021	NUT,PLAIN,4-40 UNC-2B HEX,CRES,SMALL QPL - NAS671-C4	EA
0344	00002.000	0411104-0135	WASHER, LOCK-SPRING, HELICAL, #4 QPL - MS35338-135	EA
0345	00003.000	0996805-0004	TERMINAL,MALE 10.92MM(LG)0.64MM(.025)SQ 022526-75491-004	EA
0345A			E9,E10,E11 022526-75491-004	
0346	00002.000	2210005-0007	BUMPER,URETHANE SEE TI- DWG	EA
0350	00000.000	2210307-0001	IC,(USART) SERIAL I/O,SIO/0 BONDING 056708-SEE DRAWING	EA
0350A			ALTERNATE FOR ITEM 206 056708-SEE DRAWING	
0351	00000.000	2210307-0002	IC,(USART) SERIAL I/O,SIO/1 BONDING 056708-SEE DRAWING	EA
0351A			ALTERNATE FOR ITEM 206 056708-SEE DRAWING	

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PART NUMBER    REV        DESCRIPTION............................
2208265-0001    Y         TERMINAL ELECTRONICS, 820 - BASIC

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

0352      00000.000   2210307-0003   IC,(USART) SERIAL I/O,SIO/2 BONDING      EA
                                     056708-SEE DRAWING
0352A                                ALTERNATE FOR ITEM 206
                                     056708-SEE DRAWING
0353      00000.000   0972116-0001   X DIODE UTG1249 (MAY USE 1N5808/1N5809)  EA
                                     UNT    --UTG 1249
0353A                                ALTERNATE FOR ITEM 226
                                     UNT    --UTG 1249
0354      00000.000   0999880-0001   BATTERY PACK                             EA
                                     090303-304321
0354A                                ALTERNATE FOR ITEM 311
                                     090303-304321
0355      00000.000   0972977-0252   RES,FXD,1.0 OHMS,1/2W,5% COMP            EA
                                     SEE TI- DRAWING
0355A                                R277,R278 (2) ALTERNATE FOR
                                     SEE TI- DRAWING
0355B                                ITEM 267
                                     SEE TI- DRAWING
0356      00000.000   2210363-0001   IC, 1K X 8-BIT STATIC RAM                EA
                                     0000-0000-000
0356A                                *2 EA MAY BE USED AS ALT.
                                     0000-0000-000
0356B                                *FOR ITEM 209
                                     0000-0000-000
0356C                                (U2,U3)
                                     0000-0000-000
0357      00000.000   2210025-0039   NETWORK,RES,2K OHMS,6-PIN,2%             EA
                                     5905-1400-000
0357A                                U17, WITH ITEM 358 (1 EACH)
                                     5905-1400-000
0357B                                ALTERNATES FOR ITEM 30
                                     5905-1400-000
0358      00000.000   2217368-0001   ROM, PROGRAMMED, TACH DECODE, 820 TERM   EA
                                     SEE TI- DRAWING
0358A                                U8, WITH ITEM 357 (1 EACH)
                                     SEE TI- DRAWING
0358B                                ALTERNATES FOR ITEM 30
                                     SEE TI- DRAWING
0359      00000.000   0539879-0001   TRANSISTOR 2N3725A                       EA
                                     TI     -2N3725A
0359A                                ALTERNATE FOR ITEM 245
                                     TI     -2N3725A
0360       REF        0994396-0001   PROC., SITE/DATE CODE AND SERIALIZATION  EA

0361      00000.000   0972808-0001   THERMISTOR, DISC, 5 OHM                  EA
                                     5961-0000-000
0361A                                ALTERNATE FOR ITEM 269
                                     5961-0000-000
0362      00000.000   2210036-0001   IC,OPTICALLY COUPLED ISOLATOR            EA
                                           -SEE DRAWING
0362A                                ALTERNATE FOR ITEM 212
                                           -SEE DRAWING
0363      00007.000   2211540-0001   FOAM, .35X.50X.05,POLY, ADHESIVE BACKED  EA
                                     SEE TI- DRAWING
0364      00001.000   2208271-0002   HEATSINK,CARRIAGE DRIVER,82X             EA
                                     1684-2271-000
0365      00001.000   2208271-0003   HEATSINK,PAPER DRIVER,82X                EA
                                     1684-3271-000
0366      00001.000   0972037-1910   NETWORK,RES  91    OHM 2% 16PIN 8ELEMENT EA
                                     BEC    - 898-3-R91
0366A                                U14
                                     BEC    - 898-3-R91
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LIST OF MATERIALS

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PART NUMBER    REV        DESCRIPTION.............................
2208265-0001    Y         TERMINAL ELECTRONICS, 820 - BASIC

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION........................... UM

0367      00001.000   2363830-0002   LABEL,SYMBOLIZATION (51MM X 13MM)       EA
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PART NUMBER    REV        DESCRIPTION.............................
2208265-5001    Y         TERMINAL ELECTRONICS AXIAL & AUTO INSERT

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION........................... UM

0001      00001.000   2208266-0001   PWB,TERMINAL,ELECTRONICS BOARD          EA
                                     SEE TI- DRAWING
0002      00001.000   0222224-2741   NETWORK  SN72741P  OPERATIONAL AMP      EA
                                           -SN72741P
0002A                                U202
                                           -SN72741P
0003      00003.000   0996709-0001   IC, LM393P DIFFERENTIAL COMPARATOR      EA
                                     001295-LM393P
0003A                                U107,U113,U204
                                     001295-LM393P
0006      00001.000   0972900-7402   NETWORK,SN74LS02N                       EA

0006A                                U110

0007      00002.000   0972900-7404   NETWORK SN74LS04N                       EA

0007A                                U19,U111

0008      00001.000   0222222-7406   NETWORK SN7406N                         EA

0008A                                U28

0009      00001.000   0972749-0001   NETWORK, SN74LS08N                      EA

0009A                                U16

0010      00001.000   0972784-0002   NETWORK SN74LS14N                       EA

0010A                                U1

0011      00004.000   0222222-7417   NETWORK-SN7417N                         EA

0011A                                U104,U105,U108,U112

0012      00001.000   0996399-0001   IC,SN74LS107N DUAL-NEGATIVE-EDGE        EA
                                     001295-SN74LS107N
0012A                                U30
                                     001295-SN74LS107N
0013      00001.000   0972900-7109   NETWORK  SN74LS109N                     EA
                                     0000-0000-000
0013A                                U40
                                     0000-0000-000
0014      00002.000   0972900-7138   NETWORK  SN74LS138N                     EA
                                     TI    -SN74LS138N
0014A                                U25,U26
                                     TI    -SN74LS138N
0015      00001.000   0972686-0001   NETWORK-QUAD MULTIPLEXER, SN74LS157N    EA

0015A                                U35
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PART NUMBER    REV        DESCRIPTION...........................
2208265-5501     Y        TERM ELEC,820,SEQUENCE TAPE FOR -5001

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.......................... UM

0016      00002.000   0972120-0001   NETWORK,SN74259 8-BIT ADDRESSABLE LATCH   EA
                                     001295-74259
0016A                                U6,U18
                                     001295-74259
0017      00002.000   0996015-0001   IC,QUAD LINE DRIVERS SN75188N             EA
                                     TI     -SN75188N
0017A                                U41,U42
                                     TI     -SN75188N
0018      00002.000   0972450-0002   NETWORK,SN75189AN/MC1489AL QUAD LINE RCR  EA
                                     SEE    - TI DRAWING
0018A                                U43,U44
                                     SEE    - TI DRAWING
0019      00002.000   0972787-0003   NETWORK SN74LS367N                        EA

0019A                                U29,U31

0024      00001.000   0972141-0041   NETWORK,RES. 1.0 K OHM 2 % 14 PIN DIP     EA
                                     BEC    - 899-1-R1.0K
0024A                                U106
                                     BEC    - 899-1-R1.0K
0025      00001.000   0972141-0031   NETWORK,RES. 390   OHM 2 % 14 PIN DIP     EA
                                     BEC    - 899-1-R390
0025A                                U109
                                     BEC    - 899-1-R390
0026      00001.000   0800118-0015   RESISTOR 6.8KOHMS DIL PULL UP 16 PINS     EA
                                     BEC    -8981R6.8K
0026A                                U38
                                     BEC    -8981R6.8K
0030      00001.000   2206549-0001   PROM,PROGRAMMED,TACH PHASE DECODE         EA
                                     1221-6549-015
0030A                                U8
                                     1221-6549-015
0031      00001.000   2206550-0001   PROM,PROGRAMMED,MEMORY SELECT DECODE      EA
                                     1221-6550-019
0031A                                U13
                                     1221-6550-019
0032      00001.000   2208265-5501   TERM ELEC,820,SEQUENCE TAPE FOR -5001     EA
                                     1221-8265-027
0034      00021.000   0972932-0001   DIODE 1N914B                              EA
                                     SEE TI- DRAWING
0034A                                CR1,CR2,CR112,CR113,CR115,
                                     SEE TI- DRAWING
0034B                                CR123,CR125,CR127,CR129,
                                     SEE TI- DRAWING
0034C                                CR131,CR141,CR142,CR143
                                     SEE TI- DRAWING
0034D                                CR144,CR146,CR202,CR212
                                     SEE TI- DRAWING
0034E                                CR215,CR221,CR222,CR276
                                     SEE TI- DRAWING
0035      00031.000   0539468-0002   DIODE,1N4002 1AMP  100PIV RECTIFIER       EA
                                     TI     - IN4002
0035A                                CR101,CR102,CR103,CR104
                                     TI     - IN4002
0035B                                CR105,CR106,CR107,CR108
                                     TI     - IN4002
0035C                                CR109,CR110,CR111,CR124
                                     TI     - IN4002
0035D                                CR126,CR128,CR130,CR132
                                     TI     - IN4002
0035E                                CR135,CR136,CR137,CR138
                                     TI     - IN4002
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PART NUMBER    REV         DESCRIPTION............................
2208265-55C1    Y          TERM ELEC,820,SEQUENCE TAPE FOR -5001

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0035F                                 CR140,CR204,CR208,CR213
                                      TI      - IN4002
0035G                                 CR214,CR250,CR251,CR252
                                      TI      - IN4002
0035H                                 CR253,CR254,CR260
                                      TI      - IN4002
0037      00002.000   0972268-0002    DIODE,1N4934,1 AMP                          EA
                                      MOT     - 1N4934
0037A                                 CR209,CR211
                                      MOT     - 1N4934
0038      00002.000   0972460-0007    DIODE,SILICON,ZENER 1%                      EA
                                      SEE     - TI DRAWING
0038A                                 CR201,CR122
                                      SEE     - TI DRAWING
0039      00002.000   0972268-0006    DIODE IN4937 1 AMP                          EA
                                      SEE     - TI DRAWING
0039A                                 CR257,CR258
                                      SEE     - TI DRAWING
0040      00001.000   0972934-0014    DIODE,IN759A 12.0 V 5% SIL VOLT REG         EA
                                      QPL     - 1N759A
0040A                                 CR277
                                      QPL     - 1N759A
0041      00001.000   0972946-0017    RES FIX 10.0 OHM 5 % .25 W.CARBON FILM      EA
                                      ROH     - R-25
0041A                                 R39
                                      ROH     - R-25
0042      00003.000   0972946-0025    RES FIX 22.0 OHM 5 % .25 W.CARBON FILM      EA
                                      ROH     - R-25
0042A                                 R21,R22,R38
                                      ROH     - R-25
0043      00002.000   0972946-0041    RES FIX 100  OHM 5 % .25 W CARBON FILM      EA
                                      ROH     - R-25
0043A                                 R210,R230
                                      ROH     - R-25
0044      00001.000   0972946-0043    RES FIX 120  OHM 5 % .25 W CARBON FILM      EA
                                      ROH     - R-25
0044A                                 R19
                                      ROH     - R-25
0045      00002.000   0972946-0031    RES FIX 39.0 OHM 5 % .25 W.CARBON FILM      EA
                                      ROH     - R-25
0045A                                 R118,R119
                                      ROH     - R-25
0046      00001.000   0972946-0050    RES FIX 240  OHM 5 % .25 W CARBON FILM      EA
                                      ROH     - R-25
0046A                                 R16
                                      ROH     - R-25
0047      00001.000   0972946-0053    RES FIX 330  OHM 5 % .25 W CARBON FILM      EA
                                      ROH     - R-25
0047A                                 R23
                                      ROH     - R-25
0048      00006.000   0972946-0057    RES FIX 470  OHM 5 % .25 W CARBON FILM      EA
                                      ROH     - R-25
0048A                                 R14,R15,R17,R18,R250,R261
                                      ROH     - R-25
0049      00001.000   0972946-0058    RES FIX 510  OHM 5 % .25 W CARBON FILM      EA
                                      ROH     - R-25
0049A                                 R26
                                      ROH     - R-25
0050      00001.000   0972946-0055    RES FIX 390  OHM 5 % .25 W CARBON FILM      EA
                                      ROH     - R-25
0050A                                 R235
                                      ROH     - R-25
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PART NUMBER    REV        DESCRIPTION............................
2208265-5501    Y         TERM ELEC,820,SEQUENCE TAPE FOR -5001

ITEM.     QUANTITY.   COMPONENT..   DESCRIPTION........................... UM

0051      00007.000   0972946-0065   RES FIX 1.0K OHM 5% .25 W CARBON FILM     EA
                                     ROH    - R-25
0051A                                R28,R116,R120,R121,R126
                                     ROH    - R-25
0051B                                R134,R219
                                     ROH    - R-25
0052      00004.000   0972946-0070   RES FIX 1.6K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0052A                                R135,R136,R144,R234
                                     ROH    - R-25
0053      00012.000   0972946-0072   RES FIX 2.0K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0053A                                R1,R2,R3,R4,R5,R6,R7,R41
                                     ROH    - R-25
0053B                                R112,R127,R228,R264
                                     ROH    - R-25
0054      00002.000   0972946-0081   RES FIX 4.7K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0054A                                R36,R216
                                     ROH    - R-25
0055      00008.000   0972946-0085   RES FIX 6.8K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0055A                                R20,R24,R34,R35,R37,R138,
                                     ROH    - R-25
0055B                                R209,R218
                                     ROH    - R-25
0056      00002.000   0972946-0087   RES FIX 8.2K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0056A                                R204,R217
                                     ROH    - R-25
0057      00002.000   0972946-0089   RES FIX  10K OHM 5% .25 W CARBON FILM     EA
                                     1640-2132-000
0057A                                R102,R145
                                     1640-2132-000
0058      00001.000   0972946-0109   RES FIX 68 K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0058A                                R203
                                     ROH    - R-25
0059      00001.000   0972946-0110   RES FIX 75 K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0059A                                R215
                                     ROH    - R-25
0060      00001.000   0972946-0111   RES FIX 82 K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0060A                                R109
                                     ROH    - R-25
0061      00001.000   0972946-0119   RES FIX 180K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0061A                                R224
                                     ROH    - R-25
0062      00001.000   0972946-0137   RES FIX 1.0M OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0062A                                R128
                                     ROH    - R-25
0063      00001.000   0972946-0071   RES FIX 1.8K OHM 5 % .25 W CARBON FILM    EA
                                     ROH    - R-25
0063A                                R222
                                     ROH    - R-25
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV       DESCRIPTION............................
2208265-5501    Y        TERM ELEC,820,SEQUENCE TAPE FOR -5001

ITEM.      QUANTITY.    COMPONENT..   DESCRIPTION.......................... UM

0064       00001.000   0972946-0074    RES FIX 2.4K OHM 5 % .25 W CARBON FILM     EA
                                       ROH    - R-25
0064A                                  R200
                                       ROH    - R-25
0065       00001.000   0972946-0113    RES FIX 100K OHM 5 % .25 W CARBON FILM     EA
                                       ROH    - R-25
0065A                                  R140
                                       ROH    - R-25
0066       00001.000   0972946-0063    RES FIX 820  OHM 5% .25 W CARBON FILM      EA
                                       ROH    - R-25
0066A                                  R201
                                       ROH    - R-25
0067       00001.000   0972946-0105    RES FIX 47 K OHM 5 % .25 W CARBON FILM     EA
                                       ROH    - R-25
0067A                                  R260
                                       ROH    - R-25
0069       00001.000   0972947-0049    RES FIX 220  OHM 5% .5 W CARBON FILM       EA
                                       ROH    - R-50
0069A                                  R132
                                       ROH    - R-50
0070       00001.000   0972947-0053    RES FIX 330  OHM 5% .5 W CARBON FILM       EA
                                       ROH    - R-50
0070A                                  R101
                                       ROH    - R-50
0071       00001.000   0972947-0038    RES FIX 75   OHM 5% .5 W CARBON FILM       EA
                                       ROH    - R-50
0071A                                  R231
                                       ROH    - R-50
0072       00002.000   0972947-0065    RES FIX 1.0K OHM 5% .5 W CARBON FILM       EA
                                       ROH    - R-50
0072A                                  R232,R233
                                       ROH    - R-50
0073       00001.000   0972947-0079    RES FIX 3.9K OHM 5% .5 W CARBON FILM       EA
                                       ROH    - R-50
0073A                                  R226
                                       ROH    - R-50
0074       00002.000   0972947-0062    RES FIX 750  OHM 5% .5 W CARBON FILM       EA
                                       ROH    - R-50
0074A                                  R206,R207
                                       ROH    - R-50
0075       00001.000   0972947-0137    RES FIX 1.0M OHM 5% .5 W CARBON FILM       EA
                                       ROH    - R-50
0075A                                  R229
                                       ROH    - R-50
0077       00001.000   0972977-0252    RES,FXD,1.0 OHMS,1/2W,5% COMP              EA
                                       SEE TI- DRAWING
0077A                                  R263
                                       SEE TI- DRAWING
0081       00001.000   0539370-0405    RES FIX FILM 1.62K OHM 1% .25 WATT         EA
                                       COR    - NA55
0081A                                  R115
                                       COR    - NA55
0082       00001.000   0539370-0442    RES FIX FILM 3.92K OHM 1% .25 WATT         EA
                                       COR    - NA55
0082A                                  R137
                                       COR    - NA55
0083       00001.000   0539370-0472    RES FIX FILM 8.06K OHM 1% .25 WATT         EA
                                       COR    - NA55
0083A                                  R139
                                       COR    - NA55
```

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...............................
2208265-5501    Y         TERM ELEC,820,SEQUENCE TAPE FOR -5001

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0084      00001.000  0539370-0477  RES FIX FILM 9.09K OHM 1% .25 WATT       EA
                                   COR    - NA55
0084A                              R205
                                   COR    - NA55
0085      00002.000  0539370-0481  RES FIX FILM 10.0K OHM 1% .25 WATT       EA
                                   COR    -NA55D-100PPM/C
0085A                              R142,R223
                                   COR    -NA55D-100PPM/C
0087      00001.000  0539370-0544  RES FIX FILM 45.3K OHM 1% .25 WATT       EA
                                   COR    - NA55
0087A                              R123
                                   COR    - NA55
0088      00001.000  0539370-0563  RES FIX FILM 71.5K OHM 1% .25 WATT       EA
                                   COR    - NA55
0088A                              R122
                                   COR    - NA55
0089      00001.000  0539370-0444  RES FIX FILM 4.12K OHM 1% .25 WATT       EA
                                   COR    - NA55
0089A                              R114
                                   COR    - NA55
0090      00001.000  0539370-0577  RES FIX FILM 100 K OHM 1% .25 WATT       EA
                                   COR    - NA55
0090A                              R202
                                   COR    - NA55
0091      00002.000  0539370-0414  RES FIX FILM 2.00K OHM 1% .25 WATT       EA
                                   COR    - NA55
0091A                              R254,R255
                                   COR    - NA55
0093      00001.000  0539370-0469  RES FIX FILM 7.50K OHM 1% .25 WATT       EA
                                   COR    -NA55D-100PPM/C
0093A                              R256
                                   COR    -NA55D-100PPM/C
0095      00001.000  2211116-0001  RES,FXD,8.45K OHMS,1/8W,.1%, METAL FILM  EA
                                   5905-1330-000
0095A                              R130
                                   5905-1330-000
0096      00004.000  0539812-0057  RES FIXED 10K OHMS .1%                   EA
                                   TI     -MC55C
0096A                              R129,R131,R141,R143
                                   TI     -MC55C
0097      00001.000  0539812-0066  RES, 11.3K OHMS 1/8W,.1% FXD FILM        EA
                                   001295-SEE DRAWING
0097A                              R124
                                   001295-SEE DRAWING
0100      00007.000  2211414-0001  RES, 1 OHM,3/4W, 1% METAL FILM           EA
                                   5905-1330-000
0100A                              R103,R104,R106,R107,R110,
                                   5905-1330-000
0100B                              R113,R117
                                   5905-1330-000
0103      00001.000  0972757-0021  CAP, FIX, 4700 PF, 50 V, 10%             EA

0103A                              C104

0106      00001.000  2211247-0009  CAP,10.0 PF, 5%,50VDC,CERAMIC            EA
                                   SEE TI- DRAWING
0106A                              C8
                                   SEE TI- DRAWING
0107      00002.000  2211247-0013  CAP,22.0 PF, 5%,50VDC,CERAMIC            EA
                                   SEE TI- DRAWING
0107A                              C9,C10
                                   SEE TI- DRAWING
```

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV       DESCRIPTION............................
2208265-5501    Y        TERM ELEC,820,SEQUENCE TAPE FOR -5001

ITEM.    QUANTITY.   COMPONENT..    DESCRIPTION........................... UM

0108     00001.000   2211247-0020    CAP,FXD,68.0 PF, 5%  50VDC  CERAMIC DIEL  EA

0108A                                C25

0111     00002.000   0972757-0003    CAP,FIXED CERAMIC 150 PF 10% 50V          EA
                                     UC    -C51C151K
0111A                                C105,C276
                                     UC    -C51C151K
0112     00001.000   0972757-0009    CAP FIX CER 470PF 10% 50V                 EA

0112A                                C7

0113     00001.000   0972757-0017    CAP, FIX, 2200 PF, 10%, 50 V              EA
                                     007115-CAC02X7R222K10
0113A                                C108
                                     007115-CAC02X7R222K10
0114     00002.000   0972757-0025    CAP FIX CER .01MF 10% 50V                 EA

0114A                                C201,C253

0116     00002.000   0972757-0001    CAP,FIXED CERAMIC 100 PF 10% 50V          EA
                                     UC    -C51C101K
0116A                                C103,C206
                                     UC    -C51C101K
0117     00003.000   0972757-0033    CAP,FIX,CERAMIC,.047MF,50V,+/-10% TOL.    EA

0117A                                C200,C202,C250

0120     00023.000   0972763-0021    CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20%   EA
                                     1632-0000-000
0120A                                C2,C3,C4,C5,C6,C11,C12,C13,
                                     1632-0000-000
0120B                                C14,C16,C17,C18,C19,C20,C21
                                     1632-0000-000
0120C                                ,C23,C102,C106
                                     1632-0000-000
0120D                                C26,C27,C28,C29,C30
                                     1632-0000-000
0121     00000.000   2211337-0001    CAP,.15 UF,10%, 100V, AXIAL LEAD          EA
                                     5910-0330-000
0121A                                *ALTERNATE FOR ITEM 138
                                     5910-0330-000
0126     00003.000   0972613-0009    FUSE, AXIAL LEAD, 3 AMP                   EA
                                     SEE T -I DRAWING
0126A                                F101,F102,F103
                                     SEE T -I DRAWING
0127     00001.000   0972613-0011    FUSE, CARTRIDGE 5.0 AMPS                  EA
                                     SEE TI- DRAWING
0127A                                F200
                                     SEE TI- DRAWING
0128     00002.000   0972613-0002    FUSE, CARTRIDGE .25 AMPS                  EA
                                     SEE TI- DRAWING
0128A                                F201,F202
                                     SEE TI- DRAWING
0134     00000.070   0411400-0022    WIRE 22AWG ELETRO-TIN-PLATED,COPPER       FT
                                     -   -     -000
0134A                                R268
                                     -   -     -000
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2208265-5501    Y         TERM ELEC,820,SEQUENCE TAPE FOR -5001

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0135      00001.000  0972947-0098   RES FIX 24 K OHM 5% .5 W CARBON FILM       EA
                                    ROH    - R-50
0135A                               R276
                                    ROH    - R-50
0138      00001.000  0972757-0039   CAPACITOR, .15 UF, 50 VDC, CERAMIC         EA
                                    SEE TI- DRAWING
0138A                               C15
                                    SEE TI- DRAWING
```

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03/09/83

PART NUMBER    REV        DESCRIPTION.............................
2208265-0105    AD        TERMINAL ELECTRONICS, 825 - 115 VAC

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0400      00001.000  2208265-1000   TERMINAL ELECTRONICS-STANDARD              EA
                                    1221-0050-001
0401      00001.000  2207430-0001   IC,8K X 8 ROM, 825 TERMINAL                EA
                                    -    -     -000
0401A                               U9
                                    -    -     -000
0402      00001.000  2207430-0002   IC, 8K X 8 ROM,825 TERMINAL                EA

0402A                               U10

0403      00001.000  0996750-0001   IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD  EA
                                    1221-6750-000
0403A                               U11
                                    1221-6750-000
0412      00001.000  2210188-0011   SOCKET,DIP,14-PIN,LOW PROFILE              EA
                                    SEE T -I DRAWING
0412A                               TP7
                                    SEE T -I DRAWING
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03/09/83

PART NUMBER    REV        DESCRIPTION.............................
2208265-0111    AD        TERMINAL ELECT, 820 - 115 VAC, KATA KANA

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0400      00001.000  2208265-1000   TERMINAL ELECTRONICS-STANDARD              EA
                                    1221-0050-001
0401      00001.000  0999905-0003   INTEGRATED CIRCUIT,8KX8 ROM,KATAKANA #3    EA

0401A                               U9

0402      00001.000  0999905-0004   INTEGRATED CIRCUIT,8KX8 ROM,KATAKANA #4    EA

0402A                               U10

0403      00001.000  0999906-0002   IC,4KX8 ROM,KATAKANA DOTS                  EA

0403A                               U11
```

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2208265-0201    Y         TERMINAL ELECTRONICS, 820 - 220 VAC

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0400      00001.000  2208265-1000   TERMINAL ELECTRONICS-STANDARD            EA
                                    1221-0050-001
0400A                               *DELETE R268
                                    1221-0050-001
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03/09/83

PART NUMBER    REV        DESCRIPTION............................
2208265-0205   AD         TERMINAL ELECTRONICS, 820 - 220 VAC

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0400      00001.000  2208265-1000   TERMINAL ELECTRONICS-STANDARD            EA
                                    1221-0050-001
0400A                               *DELETE R268
                                    1221-0050-001
0401      00001.000  2207430-0001   IC,8K X 8 ROM, 825 TERMINAL              EA
                                    -    -    -000
0401A                               U9
                                    -    -    -000
0402      00001.000  2207430-0002   IC, 8K X 8 ROM,825 TERMINAL              EA

0402A                               U10

0403      00001.000  0996750-0001   IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD EA
                                    1221-6750-000
0403A                               U11
                                    1221-6750-000
0412      00001.000  2210188-0011   SOCKET,DIP,14-PIN,LOW PROFILE            EA
                                    SEE T -I DRAWING
0412A                               TP7
                                    SEE T -I DRAWING
```

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2208265-0401    Y         TERMINAL ELECTRONICS, 820 - 220 VAC, BPO

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0400      00001.000  2208265-0001   TERMINAL ELECTRONICS, 820 - BASIC        EA
                                    1221-7265-027
0401      00001.000  2207625-0009   INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL EA

0401A                               U9

0402      00001.000  2207625-0010   INTEGRATED CIRCUIT,8KX8 ROM,820 TERMINAL EA

0402A                               U10

0413      00000.070  0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER      FT
                                    -    -    -000
0413A                               R269
                                    -    -    -000
0420      00001.000  2213949-0001   XFORMER, SWITCHMODE, BPO T201            EA
                                    1221-     -000
0420A                               T201
                                    1221-     -000
```

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...............................
2208265-0401    Y         TERMINAL ELECTRONICS, 820 - 220 VAC, BPO

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................. UM

0421      00000.000   0999892-0001   TRANSFORMER,SWITCHMODE,SCREENED,230VAC     EA
                                     GFSMFG-78-491-1
0421A                                ALTERNATE FOR ITEM 420,WHEN
                                     GFSMFG-78-491-1
0421B                                ITEM 421 IS USED ITEMS 422
                                     GFSMFG-78-491-1
0421C                                THRU 425 MUST BE USED AND
                                     GFSMFG-78-491-1
0421D                                F201,F202 & CR214 DELETED
                                     GFSMFG-78-491-1
0422      00000.000   0972499-0002   NETWORK,VOLG REG,NEG,3 TERM-(-12V)          EA

0422A                                U206 (1 EACH)

0423      00000.000   0972872-0012   NETWORK,LM 340-12T VOLTAGE REGULATOR        EA
                                     NSC    - LM340-12T
0423A                                U205 (1 EACH)
                                     NSC    - LM340-12T
0424      00000.000   0972924-0014   CAP FIX TANT SOLID 15 UFD 10% 20 VOLT      EA
                                     QPL    -M39003/1-2289
0424A                                C214 & C215 (2 EACH)
                                     QPL    -M39003/1-2289
0425      00000.000   0539468-0002   DIODE,1N4002 1AMP  100PIV RECTIFIER         EA
                                     TI     - IN4002
0425A                                CR223 (1EACH)
                                     TI     - IN4002
```

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03/09/83

PART NUMBER    REV        DESCRIPTION...............................
2208265-0405    AD        TERMINAL ELECTRONICS, 825 - 220 VAC, BPO

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................. UM

0400      00001.000   2208265-0001   TERMINAL ELECTRONICS, 820 - BASIC          EA
                                     1221-7265-999
0401      00001.000   2207430-0001   IC, 8K X 8 ROM, 825 TERMINAL               EA
                                     -     -      -000
0401A                                U9
                                     -     -      -000
0402      00001.000   2207430-0002   IC, 8K X 8 ROM,825 TERMINAL                EA

0402A                                U10

0403      00001.000   0996750-0001   IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD  EA
                                     1221-6750-000
0403A                                U11
                                     1221-6750-000
0412      00001.000   2210188-0011   SOCKET,DIP,14-PIN,LOW PROFILE              EA
                                     SEE T -I DRAWING
0412A                                TP7
                                     SEE T -I DRAWING
0413      00000.070   0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER        FT
                                     -     -      -000
0413A                                R269
                                     -     -      -000
0420      00001.000   2213949-0001   XFORMER, SWITCHMODE, BPO T201              EA
                                     1221-        -000
0420A                                T201
                                     1221-        -000
```

LIST OF MATERIALS

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03/09/83

PART NUMBER    REV        DESCRIPTION...........................
2208265-0405    AD        TERMINAL ELECTRONICS, 825 - 220 VAC, BPO

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................  UM

0421      00000.000   0999892-0001   TRANSFORMER,SWITCHMODE,SCREENED,230VAC    EA
                                     GFSMFG-78-491-1
0421A                                *ALT FOR ITEM 420, WHEN
                                     GFSMFG-78-491-1
0421B                                *ITEM 421 IS USED ITEMS 422
                                     GFSMFG-78-491-1
0421C                                *THRU 425 MUST BE USED AND
                                     GFSMFG-78-491-1
0421D                                *F201,F202, & CR214 DELETED
                                     GFSMFG-78-491-1
0422      00000.000   0972499-0002   NETWORK,VOLG REG,NEG,3 TERM-(-12V)        EA

0422A                                *U206 (1 EACH)

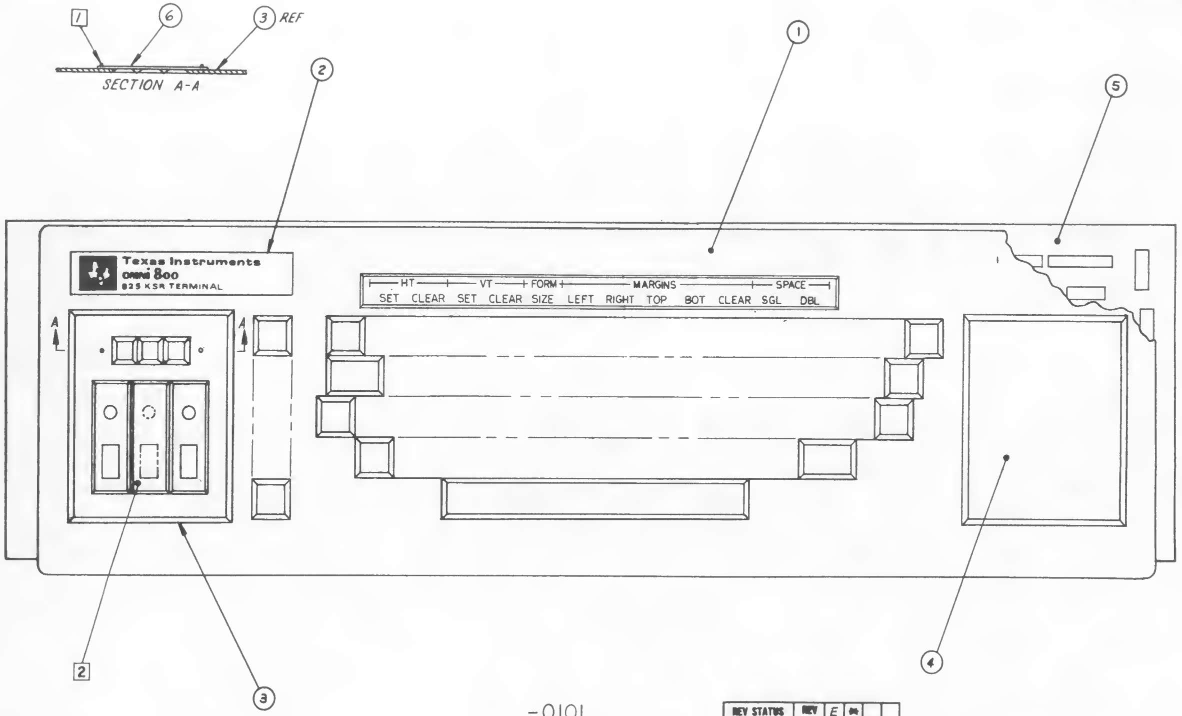
0423      00000.000   0972872-0012   NETWORK,LM 340-12T VOLTAGE REGULATOR      EA
                                     NSC    - LM340-12T
0423A                                *U205 (1 EACH)
                                     NSC    - LM340-12T
0424      00000.000   0972924-0014   CAP FIX TANT SOLID 15 UFD 10% 20 VOLT     EA
                                     QPL    -M39003/1-2289
0424A                                *C214 & C215 (2 EACH)
                                     QPL    -M39003/1-2289
0425      00000.000   0539468-0002   DIODE,1N4002 1AMP  100PIV RECTIFIER       EA
                                     TI     - IN4002
0425A                                *CR223 (1 EACH)
                                     TI     - IN4002
0426      00005.500   0996286-5455   WIRE,19-STRAND #18 GRN/YELLOW UL-1430     FT
                                     SEE TI- DRAWING
```

DWG NO 2207418 SH 1

REV	DESCRIPTION	DATE	APPROVED
A	CN433865 *S. Stevens*	7/30/79	
B	CN434062(C) S Dodson (1) REVISED PER EXTENSIVE ENG CHANGES	1-25-80	S Dodson
C	CN458431(C) S Dodson (1) -102 ITEM 7 QTY WAS 1	3-6-80	S Dodson
D	CN 452377(D) D Anderson (1) REVISED TITLES OF ALL DASH NO'S	5-2-80	S Dodson
E	CN487152(E) D. Stevens	1-22-82	
	LM-0202 ONLY ITEM 5 P/N 999868-0202		

NOTES: UNLESS OTHERWISE SPECIFIED:

1. INSTALL ITEM 6 TO ITEM 3 BY HEAT SWAGING POST- 2 PLACES
2. CENTER SWITCH AND LED USED ON -0201 AND -0202 ASSEMBLIES ONLY



-0101
-0201
-0301

PART NUMBER	DESCRIPTION
2207418-8302	KEYBOARD ASSY, INTL, ASCII W/ NUMERIC PAD 825
2207418-8301	KEYBOARD ASSY, INTL, ASCII
2207418-8202	KEYBOARD ASSY/ASC II W/NUMERIC PAD 825
2207418-8201	KEYBOARD ASSY APL / ASC II 825
2207418-8102	KEYBOARD ASSY FULL ASC II W/ NUMERIC PAD 825
2207418-8101	KEYBOARD ASSY, FULL ASC II 825
2207418-0302	KEYBOARD, INTL. ASC II W/NUMERIC PAD 825
2207418-0301	KEYBOARD, INTL. FULL ASC II 825
2207418-0202	KEYBOARD, APL/ASC II W/NUMERIC PAD 825
2207418-0201	KEYBOARD, APL ASC II 825
2207418-0102	KEYBOARD, FULL ASC II W/NUMERIC PAD 825
2207418-0101	KEYBOARD, FULL ASC II (STANDARD) 825

REV STATUS OF SHEETS	REV	E			
	SH	1	2		

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2207415	8740
2207449	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU 125 + 004 − 001	.126 THRU .250 + 005 − 001	.251 THRU 500 + 006 − .001
501 THRU 750 + 008 − 001	.751 THRU 1 000 + 010 − 001	1 001 THRU 2 000 + .012 − 001

DWN D. Volkenhal DATE 6-16-79
CHK Dave Stevens 7/29/79
ENGR Charlie Haynes 7-30-79
APVD Dennis R Lutsche 7/30/79
QA C Bradford 7/30/79
CONTR Jim Bond 7-30-79
Louis Villai 8/3/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

KEYBOARD KIT,
825 TERMINAL

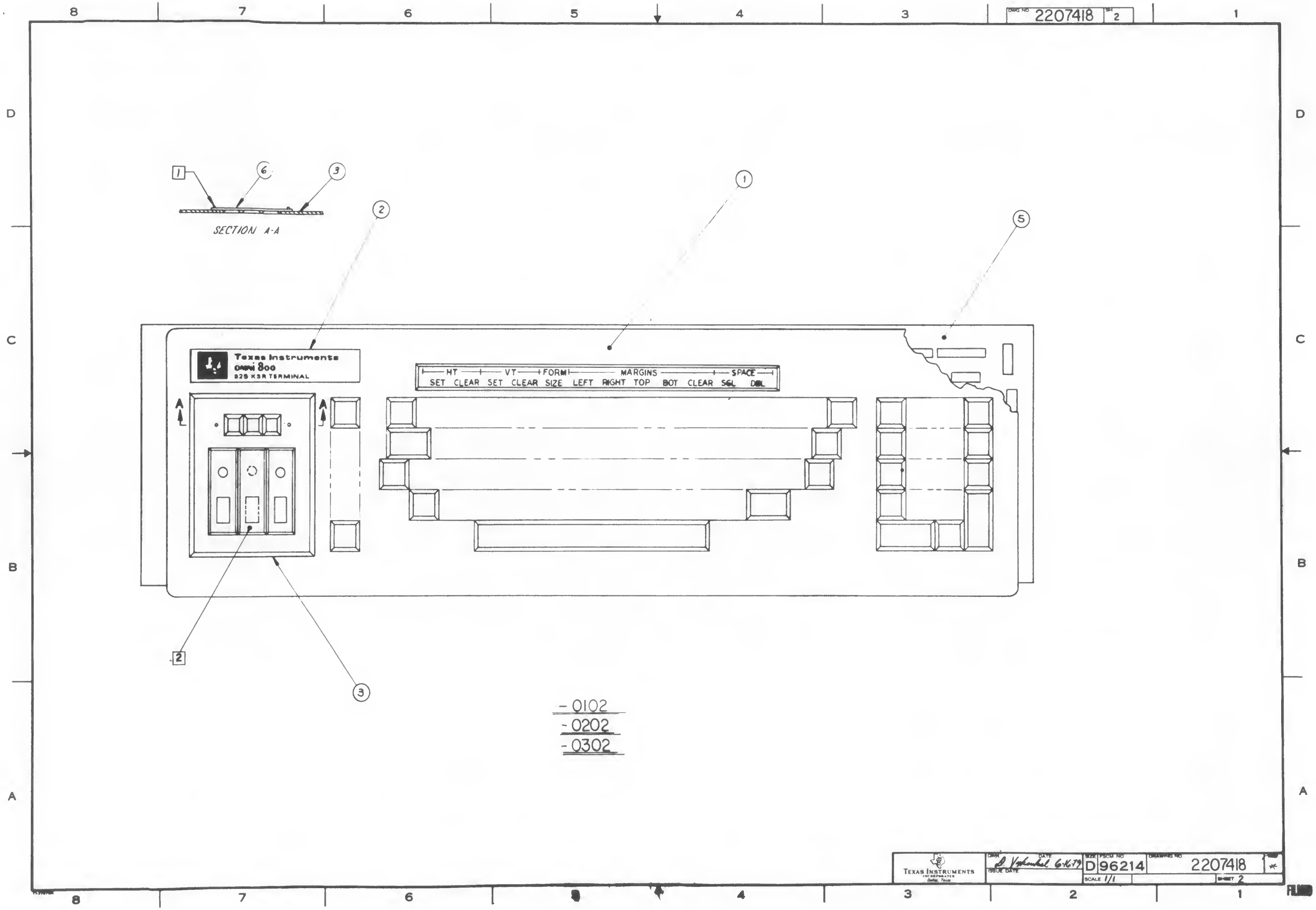
SIZE D FSCM NO 96214 DRAWING NO 2207418 FILMED
SCALE 1/1 SHEET 1 OF 2

F-SPEC
PROCESS
ADDITIONAL
CLASSIFICATION
NOTES

300

LM

26


DWG NO 2207418 SH 2
SECTION A-A
1
6
3
2
1
5
Texas Instruments
OMNI 800
825 KSR TERMINAL
A
A
HT
VT
FORM
MARGINS
SPACE
SET
CLEAR
SET
CLEAR
SIZE
LEFT
RIGHT
TOP
BOT
CLEAR
SGL
DBL
2
3
-0102
-0202
-0302
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN S. Vyhnalek DATE 6-16-79
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2207418
REV *
SCALE 1/1
SHEET 2
8
7
6
5
4
3
2
1
D
C
B
A

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207418-0101    F         KEYBOARD,FULL ASCII (STANDARD) 825

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0001      00001.000   0999766-0002   BEZEL, KEYBOARD, STD LIGHT GRAY              EA
                                     1255-1029-007
0002      00001.000   2207423-0001   NAMEPLATE,825 TERMINAL                       EA

0003      00001.000   0999767-0006   PLATE,KEYBOARD,US ASCII, LIGHT GRAY          EA
                                     1255-1035-007
0004      00001.000   0999767-0005   PLATE,KEYBOARD,BLANK, LIGHT GRAY             EA
                                     1255-1034-007
0005      00001.000   0999712-0101   KYBD, 820 KSR- STD ASCII                     EA
                                     1221-1712-073
0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                       EA
                                     1255-1016-009
0007      00000.000   0999864-0101   KYBD,UNENCODED  USASCII                      EA
                                     096306-
0007A                                THIS ITEM MAY BE SUBSTITUT-
                                     096306-
0007B                                ED FOR ITEM 5.IT IS TO BE
                                     096306-
0007C                                USED ON ALL INTERNATIONAL
                                     096306-
0007D                                TERMINALS
                                     096306-
```

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207418-0102    F         KEYBOARD,FULL ASCII W/NUMERIC PAD 825

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0001      00001.000   0999766-0002   BEZEL, KEYBOARD, STD LIGHT GRAY              EA
                                     1255-1029-007
0002      00001.000   2207423-0001   NAMEPLATE,825 TERMINAL                       EA

0003      00001.000   0999767-0006   PLATE,KEYBOARD,US ASCII, LIGHT GRAY          EA
                                     1255-1035-007
0005      00001.000   0999712-0102   KYBD,820KSR,STD. ASCII,W/NUM CLST OPTION     EA
                                     1221-2712-075
0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                       EA
                                     1255-1016-009
0007      00000.000   0999864-0102   KYBD,UNENCODED,W/NUM KEYPAD,USASCII          EA
                                     096306-
0007A                                THIS ITEM MAY BE
                                     096306-
0007B                                SUBSTITUTED FOR ITEM 5.IT
                                     096306-
0007C                                IS TO BE USED ON ALL
                                     096306-
0007D                                INTERNATIONAL TERMINALS
                                     096306-
```

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV         DESCRIPTION.............................
2207418-0201    F          KEYBOARD APL/ASCII 825

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................. UM

0001      00001.000   0999766-0002   BEZEL, KEYBOARD, STD LIGHT GRAY           EA
                                     1255-1029-007
0002      00001.000   2207423-0001   NAMEPLATE,825 TERMINAL                    EA

0003      00001.000   0999767-0008   PLATE,KEYBOARD,APL, LIGHT GRAY            EA
                                     1255-1037-000
0004      00001.000   0999767-0005   PLATE,KEYBOARD,BLANK, LIGHT GRAY          EA
                                     1255-1034-007
0005      00001.000   0999868-0201   KYBD,UNENCODED, APL                       EA
                                     096306-
0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                    EA
                                     1255-1016-009
```

```
02/05/83

PART NUMBER    REV         DESCRIPTION.............................
2207418-0202    F          KEYBOARD APL/ASCII W/NUMERIC PAD 825

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................. UM

0001      00001.000   0999766-0002   BEZEL, KEYBOARD, STD LIGHT GRAY           EA
                                     1255-1029-007
0002      00001.000   2207423-0001   NAMEPLATE,825 TERMINAL                    EA

0003      00001.000   0999767-0008   PLATE,KEYBOARD,APL, LIGHT GRAY            EA
                                     1255-1037-000
0005      00001.000   0999712-0202   KEYBOARD,820 KSR-APL W/NUM. CLUSTER OPT   EA
                                     1221-2714-004
0006      00001.000   0999733-0001   FILTER, KEYBOARD PLATE                    EA
                                     1255-1016-009
```

DWG NO 2207421 SH 1

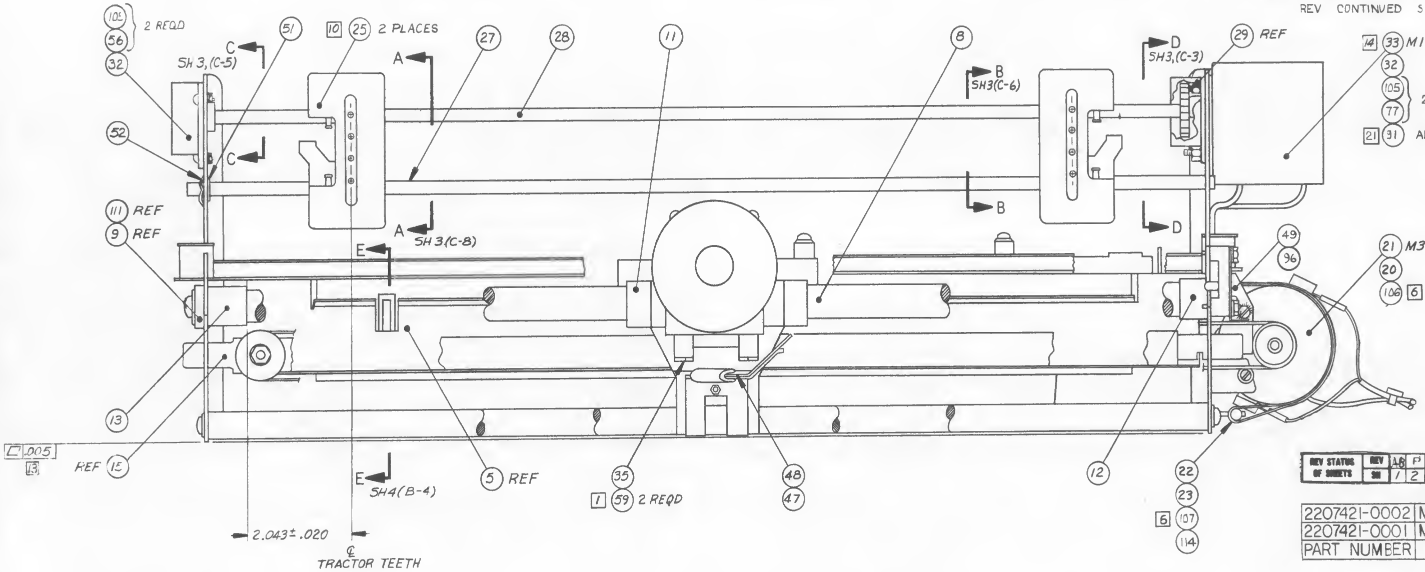
NOTES: UNLESS OTHERWISE SPECIFIED:

1. TIGHTEN TO 16±1 IN-LB AFTER POSITIONING CARRIAGE
2. TIGHTEN TO 13±1 FT-LB AFTER POSITIONING PLATEN (ITEM 3) AND BEFORE ASSEMBLING HOUSINGS (ITEM 34) TO SIDE PLATES (ITEMS 1&2)
3. TIGHTEN TO 30±1 IN-LB AFTER POSITIONING SIDE PLATES
4. ADJUST SWITCH (ITEM 44) TO DIM SHOWN WHEN SWITCH LEVER (IN CLOSED POSITION) IS IN CONTACT WITH SWITCH CASE
5. WITH HEAD ADJUSTMENT LEVER (ITEM 10) IN INNERMOST POSITION, ADJUST PLATEN TO CARRIAGE HEAD MOUNTING SURFACE A DISTANCE OF 2.216±.002 OVER FULL TRAVEL OF CARRIAGE. CHECK THAT PARALLELISM BETWEEN CARRIAGE TRAVEL AND PLATEN DOES NOT VARY MORE THAN .004 IN MIDDLE AND OUTER MOST POSITIONS OF HEAD ADJUST LEVER
6. TIGHTEN TO 4.5±.5 IN-LB
7. TIGHTEN SCREW (ITEM 67) 1/4 TO 1/2 TURN AFTER ZERO END PLAY IS ACHIEVED IN UPPER CARRIAGE ROD.
   CAUTION! OVERTIGHTENING (GREATER THAN 1/2 TURN PAST ZERO END PLAY) WILL DEFORM SIDE PLATE AND CREATE EXCESSIVE FRICTION IN HEAD ADJUST LEVER MOVEMENT
8. USE 10 TO 12 DROPS ON FELT AT EACH END
9. PAPER GUIDE (ITEM 4) SHALL BE ADJUSTED SO THAT THE ASSY SHALL MEET THE DIMENSION SHOWN
10. PHASING MARKS ON PAPER TRACTOR (ITEMS 25) SHALL BE ALIGNED TO THE SAME CORNER OF DRIVE SHAFT (ITEM 28)
11. MARK ASSY NO, APPROPRIATE REV LETTER, SERIAL NO (SITE DATE CODE & SERIAL NO) PER ITEM 94 PARAGRAPH 3.0 AND MADE IN USA ON ITEM 93 LOCATED APPROXIMATELY AS SHOWN USING GOTHIC STYLE LETTERS PER PROCESS I
12. ASSEMBLE PAPER RETAINER (ITEM 5) SO THAT ASSEMBLY MEETS DIMENSION SHOWN

NOTES CONT'D ON SH 2

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN452643(D) SDalton (1) ADDED NOTE 23 (2) ON-14-2 QTY OF: ITEM 56 WAS 7, ITEM 61 WAS 2, ITEMS 77 & 78 WERE 10, ITEM 79 WAS 6 (3) DELETED ITEM 55, -14-2	1-16-80	S Dalton
B	CN439093(D) JNClark (1) DELETED MEASUREMENTS .05 ± .05 AND SYMMETRY REQUIREMENTS (2) ITEM 93 WAS FARSIDE	2-21-80	S Dalton
C	CN460083(D) D Anderson (1) ADDED ITEM 100 & ITEM 101 TO -0001 & -0002 LM	5-2-80	S Dalton
D	CN455897(D) J.E. Murray (1) REVISED NOTE 16. (NO MICRO-FILM COPY AVAILABLE)	7-11-80	S Dalton
E	CN469165(D) J.E. Murray (1) ADDED ITEM 95, 95A & 95B TO ALL LM'S (2) LM OF -2 ONLY: ITEM 25 WAS 26. (NO MICRO-FILM COPY AVAILABLE)	7-11-80	S Dalton
F	CN457906(D) J.E. Murray (1) ON -1 & -2 QTY OF: ITEM 61 WAS 10, ITEM 79 WAS 3 (2) SH 3 DELETED ITEM 58 FROM PICTORIAL AND ALL LMS. (NO MICRO-FILM COPY AVAILABLE)	7-11-80	S Dalton
G	CN469088(D) J.E. Murray (1) SH 4 SECTION E-E: REVISED PICTORIAL (2) ON-1 & -2 LM'S QTY OF ITEM 77 WAS 9.	7-11-80	S Dalton

REV CONTINUED SH2 (A-2)



REV STATUS OF SHEETS	REV	AB	P	P	P	AB
	SH	1	2	3	4	5

2207421-0002	MECHANISM, 10 & 16.5 CPI
2207421-0001	MECHANISM, 10 CPI
PART NUMBER	DESCRIPTION

FRONT VIEW

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
1	MARK	100-00	00	HEIGHT .10 COLOR BLACK	11
	PROCESS			CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

NEXT ASSY	USED ON
2207405	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.006 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN Goulet DATE 7-10-79
CHK Dave Starnes 8-8-79
ENGR Charlie Haynes 8-8-79
APVD Dennis R 8/8/79
QA 8/8/79
CONTR B 8-8-79
8/9/79

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas

MECHANISM, 825

SIZE D FSCM NO 96214 DRAWING NO 2207421

SCALE 1/1 SHEET OF 5

300

LM

FILMED

13 APPLIES AT LOCATION DIRECTLY BELOW THE TWO BOTTOM SPACER MOUNTING HOLES

14 ORIENT MOTOR (ITEM 33) SO THAT MOTOR CABLE EXITS IN POSITION SHOWN

15 TIGHTEN TO 9±1 IN-LB

16 WHEN RIBBON DRIVE ASSY IS INSTALLED PUSH TOP PLATE TOWARD PLATEN AS FAR AS POSSIBLE - THEN TIGHTEN SCREWS INTO PLATEN.

17 TIGHTEN PRINTHEAD MOUNTING NUTS (ITEM 37) TO 5.0±.5 IN LB (FINGERTIGHT PLUS ONE SIXTH (1/6) TURN APPROXIMATELY)

18 ROLLER (ITEM 45) SHALL BE ASSEMBLED TO HOUSING (ITEM 34) AND NOSEGUIDE (ITEM 38) BY SNAPPING IN PLACE. AFTER ASSEMBLY, ROLLERS SHALL ROTATE FREELY

19 NOSEGUIDE (ITEM 38) SHALL BE ASSEMBLED PER DIM SHOWN IN SECTION K-K

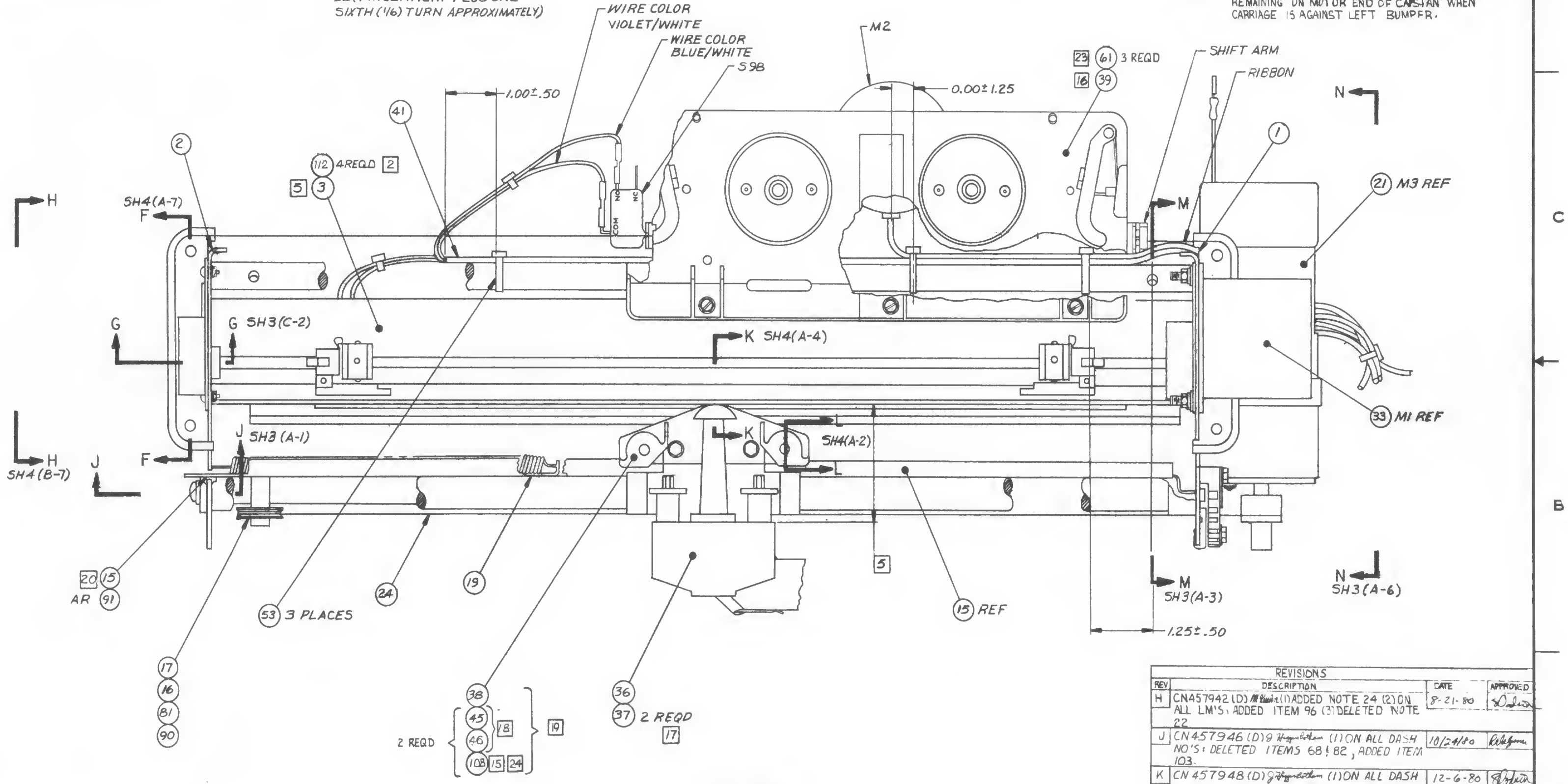
20 APPLY LUBRICANT (ITEM 91) TO SUPPORT (ITEM 15) WHERE RETAINER (ITEM 5) PASSES THRU LEFT SIDE PLATE (ITEM 2 ONLY)

21 APPLY LUBRICANT (ITEM 91) BETWEEN RIVET ON GEAR (ITEM 29) AND MOTOR ASSY (ITEM 33)

22 ~~AFTER ASSY IT IS PERMISSABLE FOR BUMPER TO TOUCH SIDE PLATE PLANE~~

23 TIGHTEN TO 20±2 IN LBS AFTER POSITIONING COMPONENT

24 THERE SHOULD BE 1 TO 1 1/6 TURNS OF WIRE ROPE REMAINING ON MOTOR END OF CAPSTAN WHEN CARRIAGE IS AGAINST LEFT BUMPER.



TOP VIEW

REV	DESCRIPTION	DATE	APPROVED
H	CN457942 (D) (1) ADDED NOTE 24 (2) ON ALL LM'S, ADDED ITEM 96 (3) DELETED NOTE 22	8-21-80	
J	CN457946 (D) J Higginbotham (1) ON ALL DASH NO'S: DELETED ITEMS 68 & 82, ADDED ITEM 103.	10/24/80	
K	CN457948 (D) J Higginbotham (1) ON ALL DASH NO'S: ITEM 39 P/N WAS 999687-1; ADDED ITEM 104; ITEM 61 QTY. WAS 10; ITEM 77 QTY. WAS 9; ITEM 78 QTY. WAS 6; ITEM 79 QTY. WAS 3.	12-6-80	

(REVISIONS CONTINUED ON SHEET 5)

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas

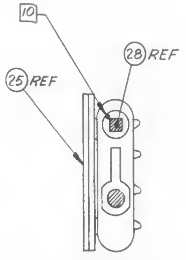
DWN DATE 7-9-79

ISSUE DATE

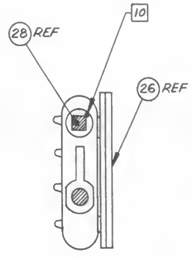
SIZE D FSCM NO 96214 DRAWING NO 2207421 REV P

SCALE 1/1 SHEET 2

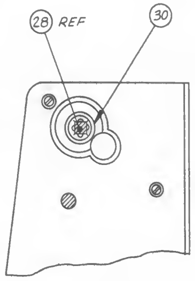
DWG NO	SH
2207421	3



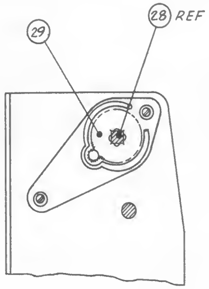
SECTION A–A
SH 1 (C-6)



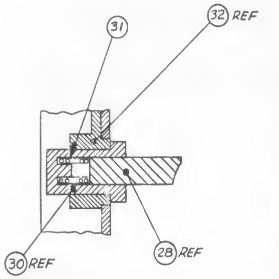
SECTION B–B
SH 1 (C-4)



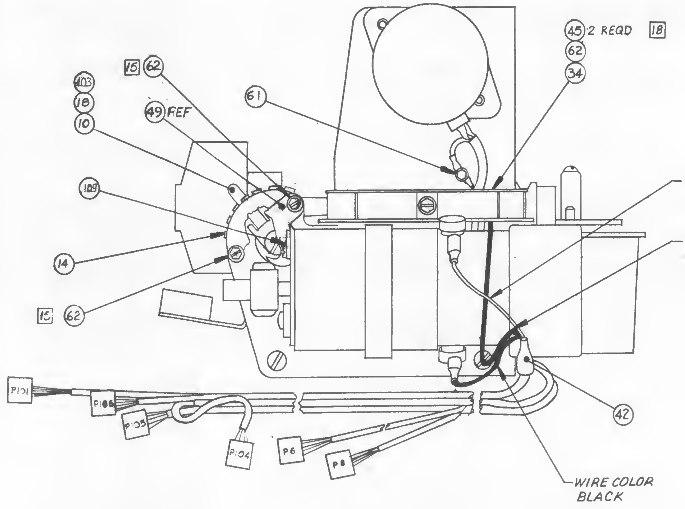
SECTION C–C
SH 1 (C-7)



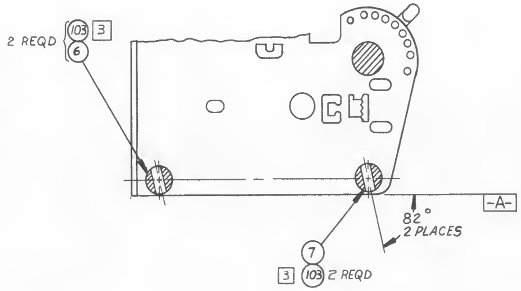
SECTION D–D
SH 1 (C-3)



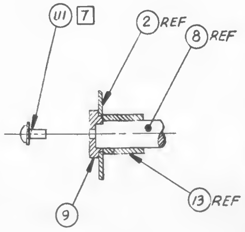
SECTION G–G
SH2 (C-7)
SCALE: 2/1



VIEW N–N
SH 2 (B-2)
ROTATED 90° CW

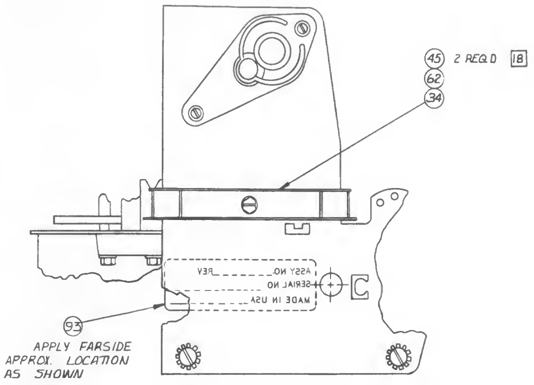


SECTION M–M
SH2 (B-2)
ROTATED 90° CCW

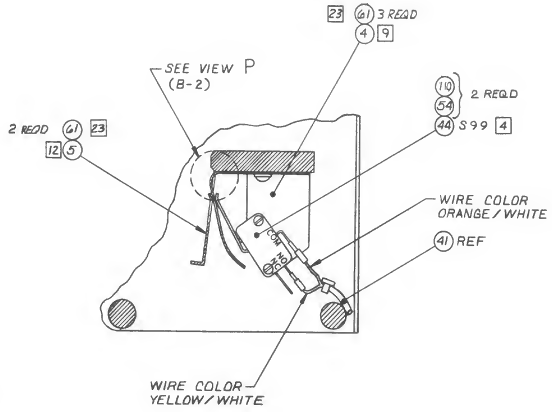


SECTION J–J
SH2 (B-7)
SCALE: 2/1

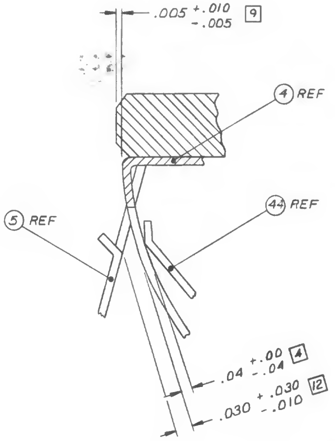
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN	DATE 7-12-79	SIZE D	FSCM NO 96214	DRAWING NO 2207421
	ISSUE DATE		SCALE 1/1		SHEET 3
					REV P



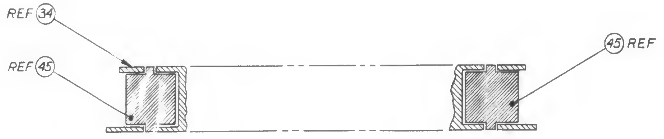
VIEW H-H
SH 2 (B-8)
ROTATED 90° CCW



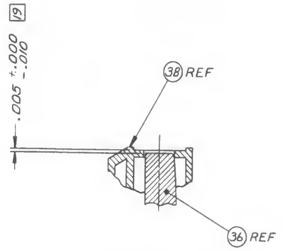
SECTION E-E
SH 1 (B-7)



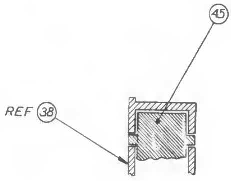
VIEW P
(D-4)
SCALE: NONE



SECTION F-F
SH 2 (C-7)
SCALE: 2/1
ROTATED 90° CW
2 PLACES
(1 OPP HAND)



SECTION K-K
SH 2 (C-4)
SCALE: 2/1



SECTION L-L
SH 2 (B-4)
SCALE: 2/1
2 PLACES

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas
DWN S. Sterns DATE 7-11-79
ISSUE DATE
SIZE D FSCM NO 96214 DRAWING NO 2207421 REV P
SCALE 1/1 SHEET 4

DWG NO 2207421 SH 5

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
L	CN472303 (D) M Kuehn (1) ON ALL LM'S, DELETED ITEM 46 (2) REVISED NOTE 18 (3) ADDED SHEET 5	2-25-81	
M	CN465671 (D) M Kuehn (1) ON ALL LM'S, REVISED ITEMS 21, 100, AND 101	2-25-81	
N	CN457238 (D) M Kuehn (1) ON ALL LM'S; ITEM 53 QTY WAS 4 (2) DELETED ALL DIM'S FROM VIEW N-N	2-25-81	
P	CN472301 (D) R. KARL (1) REVISED PER EXTENSIVE ENGR. CHANGES	7-1-81	
R	CN477838 (D) PRunyon (1) ON ALL LM'S AND PICTORIAL DELETED IT 92	10-14-81	
T	CN477987 (E) M Kuehn (1) ON ALL LM'S, ADDED ITEM 102	1-4-82	
U	CN477977 (D) P RUNYON 1) ON ALL LM'S ITEM 36 P/N WAS 2207420-0C01 (2) ADDED ITEM 113	3-31-82	
V	CN497008 (D) D. Starnes (1) SH 1 NOTE 5 DIMENSION 2.216±.002 WAS 2.210±.002	7-20-82	
W	CN468991 (D) M Kuehn (1) ON ALL LM'S, ITEM 93 DASH NO. WAS -7000	11-2-82	
Y	CN469006 (D) M Kuehn (1) ON ALL LM'S, ITEM 25 P/N WAS 996158-3, ITEM 102 P/N WAS 2220316-1	11-2-82	
AA	CN500886 (C) M Kuehn (1) ON ALL LM'S, ITEM 107 P/N WAS 2210084-1, ADDED ITEM 114	11-2-82	
AB	CN503518 (D) REX KARL (1) ITEM 61 P/N WAS 972684-11	2-1-83	R. Karl

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN M Kuehn DATE 2-20-80 ISSUE DATE	SIZE D	FSCM NO 96214	DRAWING NO 2207421	REV AB
		SCALE NONE			SHEET 5

LIST OF MATERIALS

02/09/83

PART NUMBER	REV	DESCRIPTION.............................
2207421-0001	AB	MECHANISM,10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0001	00001.000	0999715-0001	SIDE PLATE,DRIVE MECHANISM-RIGHT SIDE 1684-1715-020	EA
0002	00001.000	0999715-0002	SIDE PLATE,DRIVE MECHANISM-LEFT SIDE 1684-2715-021	EA
0003	00001.000	0999724-0001	PLATEN, 820 TERMINAL 1680-2724-500	EA
0004	00001.000	0994210-0001	PAPER GUIDE,PLATEN 1680-0210-066	EA
0005	00001.000	0999725-0001	RETAINER, PAPER-PLATEN 1684-1725-049	EA
0006	00001.000	0994186-0002	SPACER,LOWER REAR .250 HOLE DIA 820PRNTR 1684-2186-048	EA
0007	00001.000	0999705-0001	ROD,GUIDE-LOWER 1684-1705-059	EA
0008	00001.000	0994490-0001	GUIDE ROD, UPPER 1680-0490-127	EA
0009	00001.000	0994197-0001	BUSHING,GUIDE ROD 1255-0074-022	EA
0010	00001.000	0999726-0001	LEVER, ADJUSTMENT- PRINTHEAD 1255-1011-012	EA
0011	00001.000	0999913-0001	CARRIAGE ASSY, PRINTHEAD 1221-1913-001	EA
0012	00001.000	0999727-0001	BUMPER,CARRIAGE-RIGHT 1255-1012-011	EA
0013	00001.000	0999727-0002	BUMPER,CARRIAGE-LEFT 1255-0051-024	EA
0014	00001.000	0994232-0001	SCALE,HEAD GAP 1255-0017-019	EA
0015	00001.000	0994194-0001	SUPPORT,IDLER PULLEY 1680-0194-195	EA
0016	00001.000	0994195-0001	SPACER,IDLER PULLEY 1680-0195-036	EA
0017	00001.000	0994241-0001	PULLEY ASSY,IDLER	EA
0018	00001.000	0994454-0001	SPRING,GROUNDING 1680-1454-020	EA
0019	00001.000	0994263-0001	SPRING,TENSION WIRE ROPE	EA
0020	00001.000	0999703-0001	CRADLE, MOTOR 1255-1006-017	EA
0021	00001.000	0994546-0001	MOTOR ASSY CARRIAGE DRIVE,10 CPI 1225-1546-106	EA
0021A			M3 1225-1546-106	
0022	00001.000	0994201-0001	STRAP,MOTOR 1680-0201-030	EA
0023	00001.000	0994202-0001	NUT,MOTOR STRAP 1680-0202-196	EA
0024	00001.000	0994233-0001	WIRE ROPE,DRIVE MECHANISM	EA
0025	00001.000	2220316-0001	TRACTOR,PAIR, .142" DIA PIN,4 TEETH IN SEE TI- DRAWING	PR
0027	00001.000	0994209-0001	ROD,TRACTOR SUPPORT 1680-0209-077	EA
0028	00001.000	0994172-0001	DRIVE SHAFT,TRACTOR 1680-0072-047	EA
0029	00001.000	0999780-0001	GEAR ASSY, PAPER ADVANCE 1221-1780-001	EA
0030	00001.000	0994173-0001	HUB,PAPER ADVANCE 1255-0001-021	EA
0031	00001.000	0994302-0001	SPRING,COMPRESSION-PAPER DRIVE SHAFT	EA

LIST OF MATERIALS

02/09/83

PART NUMBER	REV	DESCRIPTION..............................
2207421-0001	AB	MECHANISM,10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0032	00002.000	0999729-0001	BEARING, PAPER ADVANCE 1255-1014-017	EA
0033	00001.000	0999829-0001	MOTOR ASSEMBLY, PAPER DRIVE 1221-1829-072	EA
0033A			M1 1221-1730-008	
0034	00002.000	0999731-0001	HOUSING,RIBBON GUIDE-SIDE PLATE 1255-1015-017	EA
0035	00001.000	0999704-0001	CLAMP, WIRE ROPE 1684-1704-018	EA
0036	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0037	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0038	00001.000	0999698-0001	NOSEGUIDE, PRINTHEAD 1255-1003-018	EA
0039	00001.000	2208260-0001	RIBBON DRIVE ASSEMBLY, 82X 1221-1260-302	
0041	00001.000	0999735-0001	CABLE ASSY, PAPER OUT 1221-1735-054	EA
0042	00001.000	0999736-0001	CABLE ASSY, CARRIAGE DRIVE 1221-1736-051	EA
0044	00001.000	0996169-0001	SWITCH,SENSITIVE 1620- -000	EA
0044A			S99 1620- -000	
0045	00006.000	0999697-0001	ROLLER, RIBBON 1255-1002-019	EA
0047	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0048	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0049	00001.000	0999928-0001	GROUND STRAP, CARRIAGE MOTOR 1684-1928-021	EA
0051	00001.000	0416402-4031	RING,RETAINING,EXTERNAL "E"	EA
0052	00001.000	0411778-0005	RING,RETAINING,EXTERNAL BOWED WAL - 5139-31	EA
0053	00003.000	0418212-0040	STRAP,TIEDOWN,ADJUSTABLE,PLASTIC QPL - MS3367-4-9	EA
0054	00002.000	0972988-0018	SCREW 4-40 X .625 PAN HEAD CRES	EA
0056	00002.000	0972988-0028	SCREW 6-32 X .375 PAN HEAD CRES	EA
0059	00002.000	0972969-0006	SCREW #6-20 X 1/2 LG THD PL HEX WASHER	EA
0061	00009.000	2220775-0030	SCREW,TAPTITE,6-32X.375 HEX HD SEE TI- DWG	EA
0062	00004.000	0972684-0013	SCREW,THD FRMG,HEX-WSHR HD,6-32X.625LG	EA
0069	00002.000	0972988-0030	SCREW 6-32 X .500 PAN HEAD CRES	EA
0077	00002.000	0416622-0013	WASHER #6 FLAT QPL - AN960C6L	EA
0081	00001.000	0411104-0138	WASHER, LOCK-SPRING, HELICAL, #10 QPL - MS35338-138	EA
0090	00001.000	0416453-0024	NUT,#10 HEX SMALL PATTERN	EA
0091	AR	0232334-6050	LUBRICANT SILICONE GRS LT GR 2 OZ TUBE SEE TI- DRAWING	TU
0093	00001.000	0232208-3500	LABEL WIRE MARKER DATABS VINYL CLOTH 1286-2208-000	SH
0094	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION	EA

LIST OF MATERIALS

02/09/83

PART NUMBER	REV	DESCRIPTION..............................
2207421-0001	AB	MECHANISM,10 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0095	00000.000	2210148-0003	PAPER TRACTOR, DATA, PAIR SEE TI- DRAWING	PR
0095A			MAY BE USED AS AN ALTERNATE SEE TI- DRAWING	
0095B			FOR ITEM 25 SEE TI- DRAWING	
0096	00001.000	2210005-0003	BUMPER,RUBBER, ADHESIVE, GRAY 055152-SJ-5003GRAY	EA
0100	00000.000	0994238-0003	CARRIAGE DRIVE MOTOR ASSY-10 CPI (820) 1221-3238-000	EA
0100A			ITEM 100 CAN BE USED AS AN 1221-3238-000	
0100B			ALT. FOR ITEMS 21 & 101 1221-3238-000	
0101	00001.000	2207638-0001	CABLE ASSEMBLY, ENCODER 1221-1638-018	EA
0102	00000.000	0996158-0003	TRACTOR,PAPER,PREC. PR RT & LF HAND 1225-6158-000	EA
0102A			*MAY BE USED AS AN ALTERNAT 1225-6158-000	
0102B			*FOR ITEM 25 1225-6158-000	
0103	00005.000	2210084-0033	SEMS, PAN HEAD, SLOTTED, 3/8 LONG SEE TI- DRAWING	EA
0104	00000.000	0999687-0001	RIBBON DRIVE 1221-1687-011	EA
0104A			MAY BE USED AS AN ALTERNATE 1221-1687-011	
0104B			FOR ITEM 39 1221-1687-011	
0105	00004.000	2210006-0002	ASSY, HEX NUT, LOCKWASHERS 092550-SEE DRAWING	EA
0106	00001.000	2211692-0010	SEMS,6-32 X.375,PAN HEAD,CONE WASHER SEE TI- DRAWING	EA
0107	00001.000	0972988-0031	SCREW 6-32 X .625 PAN HEAD CRES	EA
0108	00002.000	2211691-0018	SEMS,6-19X.500,HEX HEAD,CONE WASHER SEE TI- DRAWING	EA
0109	00001.000	2210084-0014	SEMS,PNH, SLTD, EXT TOOTH 32UNC-2A,.375L	EA
0110	00002.000	2210006-0001	ASSY,HEX NUT,LOCKWASHERS, 4-40 092550-SEE DRAWING	EA
0111	00001.000	2211978-0003	SCREW,SEMS,PAN HD.,CAMGRIP SELF-LOCK SEE TI- DRAWING	EA
0112	00004.000	2211967-0010	SCREW,CAP,SEMS,HEX-SOCKET HEAD,B.O. SEE TI- DRAWING	EA
0113	00000.000	2207420-0001	PRINTHEAD ASSY, 30 VOLT 1221-1420-000	EA
0113A			*MAY BE USED AS AN ALTERNAT 1221-1420-000	
0113B			*FOR ITEM 36 1221-1420-000	
0114	00001.000	0411104-0136	WASHER, LOCK-SPRING, HELICAL, #6 QPL - MS35338-136	EA
0001	00001.000	0999715-0001	SIDE PLATE,DRIVE MECHANISM-RIGHT SIDE 1684-1715-020	EA
0002	00001.000	0999715-0002	SIDE PLATE,DRIVE MECHANISM-LEFT SIDE 1684-2715-021	EA
0003	00001.000	0999724-0001	PLATEN, 820 TERMINAL 1680-2724-500	EA
0004	00001.000	0994210-0001	PAPER GUIDE,PLATEN 1680-0210-066	EA

LIST OF MATERIALS

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02/09/83

PART NUMBER    REV        DESCRIPTION..............................
2207421-0002    AB        MECHANISM,10/16 CPI

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

0005      00001.000   0999725-0001   RETAINER, PAPER-PLATEN                   EA
                                     1684-1725-049
0006      00001.000   0994186-0002   SPACER,LOWER REAR .250 HOLE DIA 820PRNTR EA
                                     1684-2186-048
0007      00001.000   0999705-0001   ROD,GUIDE-LOWER                          EA
                                     1684-1705-059
0008      00001.000   0994490-0001   GUIDE ROD, UPPER                         EA
                                     1680-0490-127
0009      00001.000   0994197-0001   BUSHING,GUIDE ROD                        EA
                                     1255-0074-022
0010      00001.000   0999726-0001   LEVER, ADJUSTMENT- PRINTHEAD             EA
                                     1255-1011-012
0011      00001.000   0999913-0001   CARRIAGE ASSY, PRINTHEAD                 EA
                                     1221-1913-001
0012      00001.000   0999727-0001   BUMPER,CARRIAGE-RIGHT                    EA
                                     1255-1012-011
0013      00001.000   0999727-0002   BUMPER,CARRIAGE-LEFT                     EA
                                     1255-0051-024
0014      00001.000   0994232-0001   SCALE,HEAD GAP                           EA
                                     1255-0017-019
0015      00001.000   0994194-0001   SUPPORT,IDLER PULLEY                     EA
                                     1680-0194-195
0016      00001.000   0994195-0001   SPACER,IDLER PULLEY                      EA
                                     1680-0195-036
0017      00001.000   0994241-0001   PULLEY ASSY,IDLER                        EA

0018      00001.000   0994454-0001   SPRING,GROUNDING                         EA
                                     1680-1454-020
0019      00001.000   0994263-0001   SPRING,TENSION WIRE ROPE                 EA

0020      00001.000   0999703-0001   CRADLE, MOTOR                            EA
                                     1255-1006-017
0021      00001.000   0994546-0002   MOTOR ASSY CARRIAGE DRIVE,10/16.5 CPI    EA
                                     1225-2546-000
0021A                                M3
                                     1225-2546-000
0022      00001.000   0994201-0001   STRAP,MOTOR                              EA
                                     1680-0201-030
0023      00001.000   0994202-0001   NUT,MOTOR STRAP                          EA
                                     1680-0202-196
0024      00001.000   0994233-0001   WIRE ROPE,DRIVE MECHANISM                EA

0025      00001.000   2220316-0001   TRACTOR,PAIR, .142" DIA PIN,4 TEETH IN   PR
                                     SEE TI- DRAWING
0027      00001.000   0994209-0001   ROD,TRACTOR SUPPORT                      EA
                                     1680-0209-077
0028      00001.000   0994172-0001   DRIVE SHAFT,TRACTOR                      EA
                                     1680-0072-047
0029      00001.000   0999780-0001   GEAR  ASSY, PAPER ADVANCE                EA
                                     1221-1780-001
0030      00001.000   0994173-0001   HUB,PAPER ADVANCE                        EA
                                     1255-0001-021
0031      00001.000   0994302-0001   SPRING,COMPRESSION-PAPER DRIVE SHAFT     EA

0032      00002.000   0999729-0001   BEARING, PAPER ADVANCE                   EA
                                     1255-1014-017
0033      00001.000   0999829-0001   MOTOR ASSEMBLY, PAPER DRIVE              EA
                                     1221-1829-072
0033A                                M1
                                     1221-1730-008
0034      00002.000   0999731-0001   HOUSING,RIBBON GUIDE-SIDE PLATE          EA
                                     1255-1015-017
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LIST OF MATERIALS

02/09/83

PART NUMBER	REV	DESCRIPTION............................
2207421-0002	AB	MECHANISM,10/16 CPI

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0035	00001.000	0999704-0001	CLAMP, WIRE ROPE 1684-1704-018	EA
0036	00001.000	2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X 1221-1374-001	EA
0037	00002.000	0994199-0001	NUT,PRINTHEAD	EA
0038	00001.000	0999698-0001	NOSEGUIDE, PRINTHEAD 1255-1003-018	EA
0039	00001.000	2208260-0001	RIBBON DRIVE ASSEMBLY, 82X 1221-1260-302	
0041	00001.000	0999735-0001	CABLE ASSY, PAPER OUT 1221-1735-054	EA
0042	00001.000	0999736-0001	CABLE ASSY, CARRIAGE DRIVE 1221-1736-051	EA
0044	00001.000	0996169-0001	SWITCH,SENSITIVE 1620- -000	EA
0044A			S99 1620- -000	
0045	00006.000	0999697-0001	ROLLER, RIBBON 1255-1002-019	EA
0047	00001.000	0983903-0002	CLIP,CABLE 1680-1903-026	EA
0048	00001.000	0999791-0001	CABLE ASSY,PRINTHEAD 1221-1791-056	EA
0049	00001.000	0999928-0001	GROUND STRAP, CARRIAGE MOTOR 1684-1928-021	EA
0051	00001.000	0416402-4031	RING,RETAINING,EXTERNAL "E"	EA
0052	00001.000	0411778-0005	RING,RETAINING,EXTERNAL BOWED WAL - 5139-31	EA
0053	00003.000	0418212-0040	STRAP,TIEDOWN,ADJUSTABLE,PLASTIC QPL - MS3367-4-9	EA
0054	00002.000	0972988-0018	SCREW 4-40 X .625 PAN HEAD CRES	EA
0056	00002.000	0972988-0028	SCREW 6-32 X .375 PAN HEAD CRES	EA
0059	00002.000	0972969-0006	SCREW #6-20 X 1/2 LG THD PL HEX WASHER	EA
0061	00009.000	2220775-0030	SCREW,TAPTITE,6-32X.375 HEX HD SEE TI- DWG	EA
0062	00004.000	0972684-0013	SCREW,THD FRMG,HEX-WSHR HD,6-32X.625LG	EA
0069	00002.000	0972988-0030	SCREW 6-32 X .500 PAN HEAD CRES	EA
0077	00002.000	0416622-0013	WASHER #6 FLAT QPL - AN960C6L	EA
0081	00001.000	0411104-0138	WASHER, LOCK-SPRING, HELICAL, #10 QPL - MS35338-138	EA
0090	00001.000	0416453-0024	NUT,#10 HEX SMALL PATTERN	EA
0091	AR	0232334-6050	LUBRICANT SILICONE GRS LT GR 2 OZ TUBE SEE TI- DRAWING	TU
0093	00001.000	0232208-3500	LABEL WIRE MARKER DATABS VINYL CLOTH 1286-2208-000	SH
0094	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION	EA
0095	00000.000	2210148-0003	PAPER TRACTOR, DATA, PAIR SEE TI- DRAWING	PR
0095A			MAY BE USED AS AN ALTERNATE SEE TI- DRAWING	
0095B			FOR ITEM 25 SEE TI- DRAWING	

LIST OF MATERIALS

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02/09/83

PART NUMBER    REV       DESCRIPTION............................
2207421-0002   AB        MECHANISM,10/16 CPI

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.......................... UM

0096      00001.000   2210005-0003   BUMPER,RUBBER, ADHESIVE, GRAY              EA
                                     055152-SJ-5003GRAY
0100      00000.000   0994238-0004   CARRIAGE DR  MOTOR ASSY  10&16.5CPI(820)   EA
                                     1221-4238-000
0100A                                ITEM 100 CAN BE USED AS AN
                                     1221-4238-000
0100B                                ALT. FOR ITEMS 21 & 101
                                     1221-4238-000
0101      00001.000   2207638-0002   CABLE ASSEMBLY, ENCODER                    EA
                                     1221-2638-024
0102      00000.000   0996158-0003   TRACTOR,PAPER,PREC. PR RT & LF HAND        EA
                                     1225-6158-000
0102A                                *MAY BE USED AS AN ALTERNAT
                                     1225-6158-000
0102B                                *FOR ITEM 25
                                     1225-6158-000
0103      00005.000   2210084-0033   SEMS, PAN HEAD, SLOTTED, 3/8 LONG          EA
                                     SEE TI- DRAWING
0104      00000.000   0999687-0001   RIBBON DRIVE                               EA
                                     1221-1687-011
0104A                                MAY BE USED AS AN ALTERNATE
                                     1221-1687-011
0104B                                FOR ITEM 39
                                     1221-1687-011
0105      00004.000   2210006-0002   ASSY, HEX NUT, LOCKWASHERS                 EA
                                     092550-SEE DRAWING
0106      00001.000   2211692-0010   SEMS,6-32 X.375,PAN HEAD,CONE WASHER       EA
                                     SEE TI- DRAWING
0107      00001.000   0972988-0031   SCREW 6-32 X .625 PAN HEAD CRES            EA

0108      00002.000   2211691-0018   SEMS,6-19X.500,HEX HEAD,CONE WASHER        EA
                                     SEE TI- DRAWING
0109      00001.000   2210084-0014   SEMS,PNH, SLTD, EXT TOOTH 32UNC-2A,.375L   EA

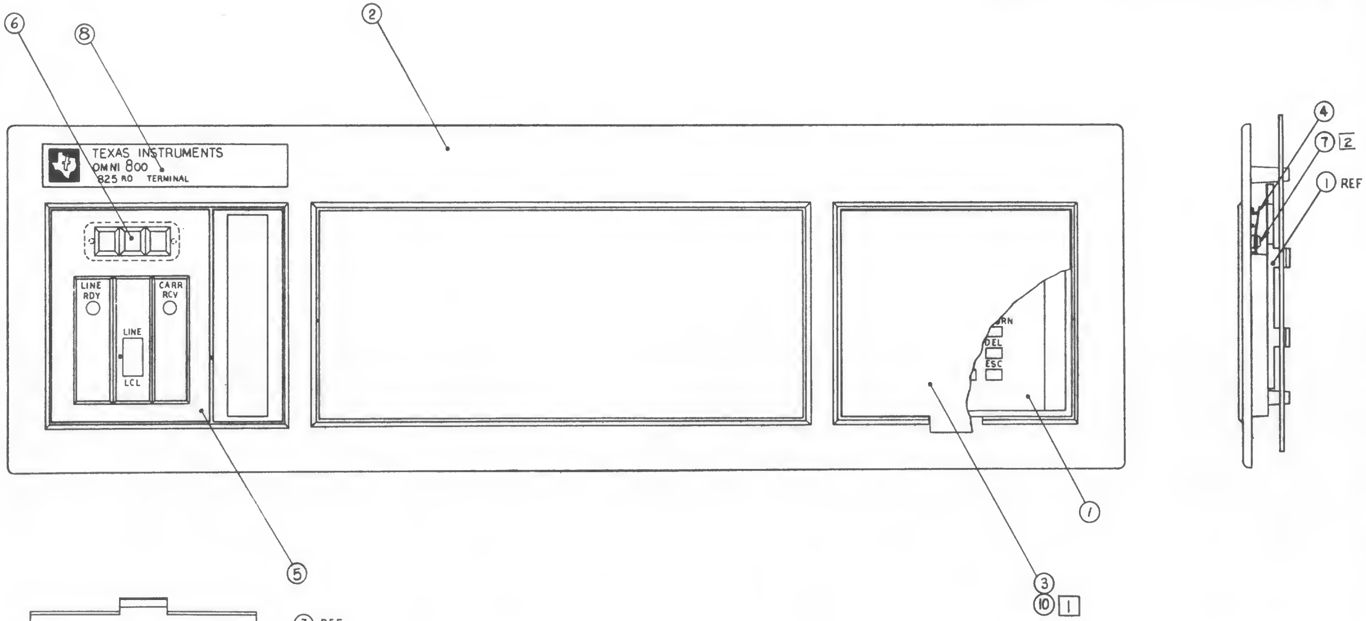
0110      00002.000   2210006-0001   ASSY,HEX NUT,LOCKWASHERS, 4-40             EA
                                     092550-SEE DRAWING
0111      00001.000   2211978-0003   SCREW,SEMS,PAN HD.,CAMGRIP SELF-LOCK       EA
                                     SEE TI- DRAWING
0112      00004.000   2211967-0010   SCREW,CAP,SEMS,HEX-SOCKET HEAD,B.O.        EA
                                     SEE TI- DRAWING
0113      00000.000   2207420-0001   PRINTHEAD ASSY, 30 VOLT                    EA
                                     1221-1420-000
0113A                                *MAY BE USED AS AN ALTERNAT
                                     1221-1420-000
0113B                                *FOR ITEM 36
                                     1221-1420-000
0114      00001.000   0411104-0136   WASHER, LOCK-SPRING, HELICAL, #6           EA
                                     QPL    - MS35338-136
```

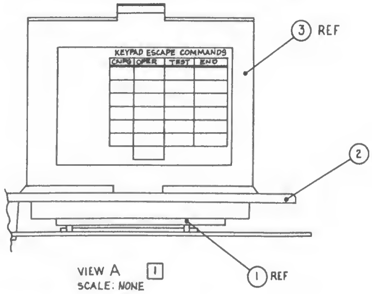
NOTES: UNLESS OTHERWISE SPECIFIED:

1. STICK KEYPAD LABEL (ITEM 10) ON THE BOTTOM SURFACE OF THE DOOR BEZEL (ITEM 3) SUCH THAT THE ORIENTATION OF THE KEYPAD LABEL IS AS SHOWN ON VIEW A (A-7) WHEN DOOR BEZEL IS OPEN
2. TIGHTEN ITEM 7 TO 32 IN OZ ± 8 IN OZ

DWG NO 2207417 SH

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN433439 Z. PALMER 1) ADDED IT. 10 TO L/M; 2) ZONE B-2 ADDED IT. 1 CALLOUT; 3. ZONE C-1, ADDED ITEM 1 PICTORIAL; 4) ADDED NOTE 1; 5) ADDED VIEW A IN ZONE A-7.	9/26/79	
B	CN435681 REKHA SETH 1) ITEM 7 P/N WAS 972988-13 ADDED NOTE 2 3) LM DELE ITEM 9 LM ITEM 7 P/N WAS 972988-13	10-22-79	D Stamm
C	CN460006 (D) S Dodson (1) ADDED -2 AND -3	1-16-80	S Dodson





VIEW A 1
SCALE: NONE

PART NUMBER	DESCRIPTION
2207417-0003	CONTROL PANEL ASSY, 825 RO, KATAKANA
2207417-0002	CONTROL PANEL ASSY, 825 RO, APL
2207417-0001	CONTROL PANEL ASSY, 825 RO

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2207408	8740
2207407	8740
2207406	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN B Levon DATE 6-16-79
CHK Dave Stamm 7/29/79
EN Charlie Haynes 7/30/79
Dennis R. Fritsche 7/28/79
QA C Bradford 7/30/79
CONTR Lyn Bird 7-30-79
REL 8/3/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CONTROL PANEL ASSY,
825 RO

SIZE D FSCM NO 96214 DRAWING NO 2207417
SCALE 1/1 SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

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22
4 30
LM

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207417-0001    C         CONTROL PANEL ASSY-FULL ASCII 825RO

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION........................... UM

0001      00001.000   0999953-0101    KYBD,825/820 RO ASCII                   EA
                                      1221-1953-064
0002      00001.000   0999963-0002    BEZEL, KEYBOARD, RO, STD LIGHT GRAY     EA
                                      1255-1046-006
0003      00001.000   0999967-0002    DOOR BEZEL, RO, STD LIGHT GRAY          EA
                                      1255-1052-006
0004      00002.000   0999968-0001    SPRING,LEAF,BEZEL DOOR                  EA
                                      1684-1968-029
0005      00001.000   0999966-0002    PLATE, BEZEL RO,STD LIGHT GRAY          EA
                                      1255-1050-005
0006      00001.000   0999733-0001    FILTER, KEYBOARD PLATE                  EA
                                      1255-1016-009
0007      00002.000   0996010-0001    SCREW #4-24 X 1/4 PAN HEAD              EA
                                      ----------000
0008      00001.000   2207422-0001    NAMEPLATE, PRINTER, RO, 825             EA

0010      00001.000   2207633-0001    LABEL,KEYPAD ESCAPE COMMANDS            EA
                                      1221-1633-000
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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207417-0002    C         CONTROL PANEL ASSY-APL/ASCII  825RO

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION........................... UM

0001      00001.000   0999953-0201    KYBD,825/820 RO ASCII                   EA
                                      1221-2953-000
0002      00001.000   0999963-0002    BEZEL, KEYBOARD, RO, STD LIGHT GRAY     EA
                                      1255-1046-006
0003      00001.000   0999967-0002    DOOR BEZEL, RO, STD LIGHT GRAY          EA
                                      1255-1052-006
0004      00002.000   0999968-0001    SPRING,LEAF,BEZEL DOOR                  EA
                                      1684-1968-029
0005      00001.000   0999966-0002    PLATE, BEZEL RO,STD LIGHT GRAY          EA
                                      1255-1050-005
0006      00001.000   0999733-0001    FILTER, KEYBOARD PLATE                  EA
                                      1255-1016-009
0007      00002.000   0996010-0001    SCREW #4-24 X 1/4 PAN HEAD              EA
                                      ----------000
0008      00001.000   2207422-0001    NAMEPLATE, PRINTER, RO, 825             EA

0010      00001.000   2207633-0001    LABEL,KEYPAD ESCAPE COMMANDS            EA
                                      1221-1633-000
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2207417-0003    C         CONTROL PNL ASSY,825 RO,KATAKANA

ITEM.     QUANTITY.    COMPONENT..    DESCRIPTION........................... UM

0001      00001.000    0999953-0201    KYBD,825/820 RO ASCII                    EA
                                       1221-2953-000
0002      00001.000    0999963-0002    BEZEL, KEYBOARD, RO, STD LIGHT GRAY      EA
                                       1255-1046-006
0003      00001.000    0999967-0002    DOOR BEZEL, RO, STD LIGHT GRAY           EA
                                       1255-1052-006
0004      00002.000    0999968-0001    SPRING,LEAF,BEZEL DOOR                   EA
                                       1684-1968-029
0005      00001.000    0999966-0002    PLATE, BEZEL RO,STD LIGHT GRAY           EA
                                       1255-1050-005
0006      00001.000    0999733-0001    FILTER, KEYBOARD PLATE                   EA
                                       1255-1016-009
0007      00002.000    0996010-0001    SCREW #4-24 X 1/4 PAN HEAD               EA
                                       ----------000
0008      00001.000    2207422-0001    NAMEPLATE, PRINTER, RO, 825              EA

0010      00001.000    2207633-0001    LABEL,KEYPAD ESCAPE COMMANDS             EA
                                       1221-1633-000
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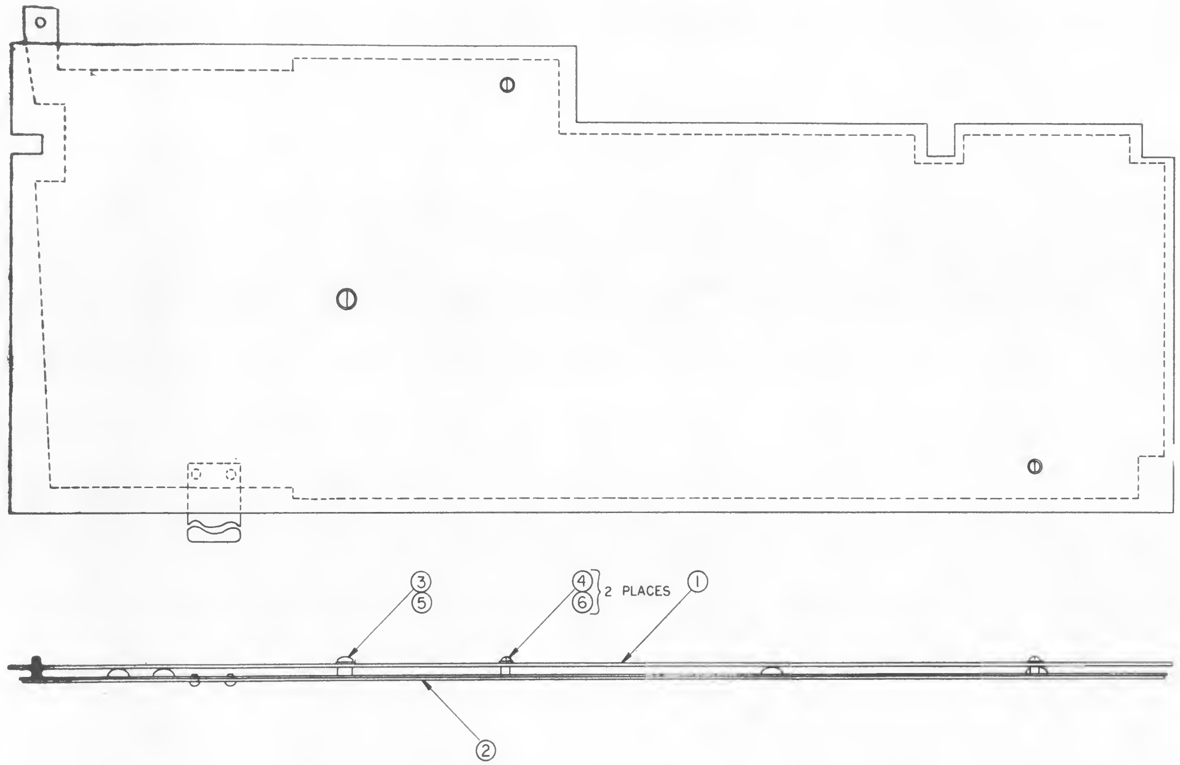
2207414

REV	DESCRIPTION		
A	CN460011(D) S.Dodson (1) ADDED -0801	2-7-80	S. Dodson
B	CN479190 (D) [illegible] (1) ON -0101, -0201, AND -0401 LM'S, CHNGD IT 1 FM FROM 2207413-0101, -0201, AND -0401 TO [illegible] -0105, -0205, AND 0405 RESPECTFULLY.	[illegible]-3-81	M Kuenk

NOTES: UNLESS OTHERWISE SPECIFIED:



2207414-0801	TERM ELECTRONICS W/GND PLANE (115V)	KATAKANA
2207414-0401	TERM ELECTRONICS W/GND PLANE (230V)	BPO
2207414-0201	TERM ELECTRONICS W/GND PLANE (230V)	EUROPEAN
2207414-0101	TERM ELECTRONICS W/GND PLANE (115V)	DOMESTIC
PART NO.	DESCRIPTION	[illegible]

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
2207405	8740

APPLICATION

DWN S. [illegible] DATE 7-2-79
CHK Dave Stam 7/22/79
ENGR Charlie Haynes 7/30/79
APP Dennis R Lutsche 7/30/79
QA C Bragford 7/30/79
CONTR Lisa Byrd 7-30-79
[illegible] Villa 7/30/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

TERMINAL ELECTRONICS
WITH GND PLANE

SIZE D FSCM NO 96214 DRAWING NO 2207414
SCALE 1/1 SHEET

LM

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207414-0101    B         TERMINAL ELECTRONICS W/GND PLANE-115 V

ITEM.      QUANTITY.    COMPONENT..    DESCRIPTION.............................. UM

0001       00001.000    2208265-0105    TERMINAL ELECTRONICS, 825 - 115 VAC        EA
                                        1221-0043-030
0002       00001.000    0999872-0001    GROUND PLANE ASSY                          EA
                                        1684-1872-015
0003       00001.000    0972988-0041    SCREW 8-32 X .250 PAN HEAD CRES            EA

0004       00002.000    0972988-0013    SCREW 4-40 X .250 PAN HEAD CRES            EA

0005       00001.000    0411101-0059    LOCKWASHER # 8  EXTERNAL TOOTH CRES        EA
                                        QPL    - MS35335-59
0006       00002.000    0411101-0057    LOCKWASHER # 4  EXTERNAL TOOTH CRES        EA
                                        QPL    - MS35335-57
```

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207414-0201    B         TERMINAL ELECTRONICS W/GND PLANE-230V

ITEM.      QUANTITY.    COMPONENT..    DESCRIPTION.............................. UM

0001       00001.000    2208265-0205    TERMINAL ELECTRONICS, 820 - 220 VAC        EA
                                        1221-0042-000
0002       00001.000    0999872-0001    GROUND PLANE ASSY                          EA
                                        1684-1872-015
0003       00001.000    0972988-0041    SCREW 8-32 X .250 PAN HEAD CRES            EA

0004       00002.000    0972988-0013    SCREW 4-40 X .250 PAN HEAD CRES            EA

0005       00001.000    0411101-0059    LOCKWASHER # 8  EXTERNAL TOOTH CRES        EA
                                        QPL    - MS35335-59
0006       00002.000    0411101-0057    LOCKWASHER # 4  EXTERNAL TOOTH CRES        EA
                                        QPL    - MS35335-57
```

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2207414-0401    B         TERMINAL ELECTRONICS W/GND PLANE230(BPO)

ITEM.      QUANTITY.    COMPONENT..    DESCRIPTION.............................. UM

0001       00001.000    2208265-0405    TERMINAL ELECTRONICS, 825 - 220 VAC, BPO   EA
                                        1221-0041-001
0002       00001.000    0999872-0001    GROUND PLANE ASSY                          EA
                                        1684-1872-015
0003       00001.000    0972988-0041    SCREW 8-32 X .250 PAN HEAD CRES            EA

0004       00002.000    0972988-0013    SCREW 4-40 X .250 PAN HEAD CRES            EA

0005       00001.000    0411101-0059    LOCKWASHER # 8  EXTERNAL TOOTH CRES        EA
                                        QPL    - MS35335-59
0006       00002.000    0411101-0057    LOCKWASHER # 4  EXTERNAL TOOTH CRES        EA
                                        QPL    - MS35335-57
```

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION..............................
-2207414-0801   B         TERMINAL ELEC W/GND PLANE-115V,KATAKANA

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................. UM

0001      00001.000   2207413-0801   TERMINAL ELECTRONICS 115V KATAKANA         EA
                                     1221-     -000
0002      00001.000   0999872-0001   GROUND PLANE ASSY                          EA
                                     1684-1872-015
0003      00001.000   0972988-0041   SCREW 8-32 X .250 PAN HEAD CRES            EA

0004      00002.000   0972938-0013   SCREW 4-40 X .250 PAN HEAD CRES            EA

0005      00001.000   0411101-0059   LOCKWASHER # 8  EXTERNAL TOOTH CRES        EA
                                     QPL    - MS35335-59
0006      00002.000   0411101-0057   LOCKWASHER # 4  EXTERNAL TOOTH CRES        EA
                                     QPL    - MS35335-57
```

DWG NO 2207413 SH 1

NOTES: UNLESS OTHERWISE SPECIFIED:

1 MOUNT DISC (ITEM 209) CONCENTRICALLY TO SUPPORT (ITEM 178) USING SILICONE RTV (ITEM 200)

2 MARK SITE/DATE CODE ON ASSEMBLY IN POSITION INDICATED PER 994396 (ITEM 235), PARAGRAPH 4.0 AND PROCESS 1

3 MARK APPROPRIATE DASH NUMBER AND REVISION LETTER PER PROCESS 1

4 INSTALL SELF-CLINCHING STUDS (ITEM 206) BEFORE PROCESS 2

5 ~~R124 IS TO BE SELECTED TO A TOLERANCE OF +.5% -.2% AND MARKED WITH A YELLOW DOT~~

6. ▨ INDICATES COMPONENTS NOT USED

7 ORIENT BOTH CONNECTORS (ITEM 185) USING VENDOR IDENTIFICATION MOLDED INTO PART AND POSITION AS SHOWN

8 ITEM 190 MAY BE SUBSTITUTED FOR ITEM 189 FOR REWORK NEED ONLY

9 INSTALL TEST JUMPER PLUGS (ITEM 192) AFTER ASSEMBLY FINAL TEST (E3 & E4)(E5 & E6)(E15 & E16)(E205 & E206)(E207 & E208)(E209 & E210)(E211 & E212)(E213 & E214)(E215 & E216)(E219 & E220)(E234 & E235)(E262 & E263)(E264 & E265)

10 INSTALL TEST SOCKET (ITEM 173) FROM CONDUCTOR SIDE OF BOARD

11 SEE VIEW L, SH. 6, C-2 FOR ALL SINGLE TRANSISTORS TO HEATSINK HARDWARE STACK DETAIL ~~U208~~, AND VIEW M, SH 6, A-2 FOR DOUBLE TRANSISTOR TO HEATSINK HARDWARE STACK DETAIL. ~~SEE VIEW R, SH 8, C-7 FOR Q205 TRANSISTOR TO HEATSINK HARDWARE STACK DETAIL. SEE VIEW T, SH 8, A-7 FOR U208 TRANSISTOR TO HEATSINK HARDWARE STACK DETAIL~~

12 TORQUE TO BE 3.5 ± .5 IN-LBS

~~13 APPLY THERMAL COMPOUND (ITEM 202) BETWEEN NETWORKS (ITEM 10) AND HEATSINK (ITEM 198) (3 PLACES) AFTER PROCESS 2 AND RETORQUE HARDWARE~~

14 RESISTOR (ITEM 118) OMITTED FROM PLAN VIEW FOR CLARITY

15 SECURE TOROID (ITEM 74) AND COMPLETE ELECTRICAL CONNECTIONS USING BUS WIRE (ITEM 224) BETWEEN TERMINALS E250 TO E251, E252 TO E253, E254 TO E255, E256 TO E257, E258 TO E259 AND E260 TO E261

16 FOR 115 VOLT ASSEMBLY (-101) INSTALL THERMISTORS (ITEM 183) IN LOCATIONS R272 AND R273. FOR 230 VOLT ASSEMBLY (-201 -401) INSTALL THERMISTORS (ITEM 183) IN LOCATIONS R274 AND R275 AND CONNECT E285 TO E286 USING BUSS WIRE (ITEM 224)

17. ITEMS ~~108,~~ 119, 120, 145 ~~AND 146~~ TO BE INSTALLED WITH A CLEARANCE OF .020 (MIN) AND .120 (MAX) BETWEEN COMPONENT BODY AND PWB (ITEM 1)

18. MAX LEAD LENGTH BELOW SURFACE OF BOARD .07

19 TIGHTEN TRANSISTOR MOUNTING HARDWARE ON HEATSINKS (ITEM 195, 196 AND 197) TO 3.0 ± .5 IN-LBS AND OTHER HARDWARE TO 6.0 ± .5 IN-LBS TORQUE DRIVE TO BE APPLIED TO NUT, NOT SCREW.

20 SOLDER WIRES (ITEMS 186 AND 187) TO PWB PER PROCESS 3 AND REF DESIGNATOR INDICATED

21 SECURE CAP (ITEM 169) TO PWB WITH A 1-INCH MINIMUM BEAD OF RTV (ITEM 200) ALONG EACH ACCESSIBLE SIDE AND BETWEEN ADJACENT CAPACITORS

22 FOR -0101, 0201 AND ~~-0801~~ ASSEMBLIES INSTALL SIG/CHASSIS GND OPTION CABLE (ITEM 188) BETWEEN E222 AND E223 ~~AFTER PROCESS 2~~ [REF ONLY: CUSTOMER OPTION ISC CONNECTS E222 ~~TO E221~~] FOR -0401 ASSEMBLY INSTALL BUS WIRE (ITEM 223) BETWEEN E221 AND E223 PER PROCESS 3, SEE VIEW R, SH 5, (B-7).

23 SECURE BATTERY (ITEM 249) USING THREE PIECES OF TAPE (ITEM 227)

24 SEE VIEW N SH 3 (C-7) FOR INSTALLATION OF ITEM 37 AND ITS SUBSTITUTE PART (ITEM 234) AND PCB MODIFICATION

NOTES CONTINUED ON SHEET 1A

THIS DRAWING	P	R	R	R	R	R	T	U	V	W	Y	AA
DRWG # 999947	AJ	AJ	AK	AL	AM	AN	AP	AR	AT	AU	AV	AW
LAST ITEM # USED	247	247	247	247	248	248	249	249	250	252	252	253
THIS DRAWING	C	D	E	F	G	H	J	K	L	M	N	P
DRWG # 999947	V(HKM)	V(-H)	V	W	Y	AA	AB	AC	AE	AF	AG	AH
LAST ITEM # USED	239	239	239	242	242	244	244	244	245	245	246	246

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN 434035	9-13-79	D Stalnes
B	CN434009 S. Stevens	9-13-79	D Stalnes
C	CN 433695 (B) J.A.ROY (1) ADD NOTE 30 (2) ALL LMS ITEM 94 QTY WAS 7 & DELETE R37 ITEM 193 P/N WAS 996521-18 (3) -401 LM ONLY ITEM 226 QTY WAS 2	12/13/79	D. Stalnes
D	CN 433694 (C) Pat Edwards (1) ITEM 193 - P/N WAS 972779-0001 (2) ITEM 226 - QTY WAS 8.	1/15/80	[illegible]
E	CN 433693 (C) Pat Edwards 1.) ITEM 94 QTY WAS 6	1/16/80	[illegible]
F	CN 455656 (D) V VELAZQUEZ 1) RESTRUCTURE -0101 -0201 -0401 LM'S 2) ADDED -0801 LM 3) ADDED REV STATUS BLOCK 4) SHT 2 Z A-6 ADDED LABEL ITEM #242	2-8-80	[illegible]
G	CN 452390 (D) V VELAZQUEZ (1) UPDATE REV STATUS BLOCK	4-8-80	Pat E.
H	CN454982 (D) S Dodson (1) ADDED NOTE 31	5-19-80	S Dodson
J	CN 458410 (D) K. Nguyen (1) REVISED PER EXTENSIVE ENG. CHANGES. (NO MICRO-FILM AVAILABLE)	6-30-80	S Dodson
K	CN 452392 (D) K. Nguyen (1) REVISED PER EXTENSIVE ENG. CHANGES. (NO MICRO-FILM AVAILABLE)	6-30-80	S Dodson
L	CN 458459 (D) K. Nguyen (1) REVISED PER EXTENSIVE ENG. CHANGES. (NO MICRO-FILM AVAILABLE)	6-30-80	S Dodson
M	CN 444273 (D) K. Nguyen (1) UPDATE REV STATUS BLOCK (2) -0801: ITEM 21 WAS 999906-1	6-30-80	S Dodson
N	CN 457279 (D) G. Higginbotham (1) REV PER EXTENSIVE ENG. CHANGES	9-30-80	S Dodson
P	CN 457281 (D) [illegible] 1) ADDED WARNING LABEL 2) ADDED 247-AH-P TO THE REVISION STATUS BLOCK	11-14-80	S Dodson
R	CN 465611 (D) G. Higginbotham (1) NOTE 20 WAS "... 186, 187, AND 225)..." (2) NOTE 30 WAS A FLAG NOTE (3) NOTE 32 WAS A GENERAL NOTE (4) SH 2, ZN A-7: ADDED FLAG NOTE 32 CALLOUT. (5) SH 3, B-1: ADDED DIM .05, +.07 -.00 (6) UPDATED REV LVL BLK	12/17/80	[illegible]

REVISIONS CONTINUED ON SH 1A (D-1)

PART NUMBER	DESCRIPTION	REMARKS
2207413-0801	TERMINAL ELECTRONICS, 115 VOLT - 825	KATAKANA
2207413-0401	TERMINAL ELECTRONICS, 230 VOLT - 825	BPO
2207413-0201	TERMINAL ELECTRONICS, 230 VOLT - 825	EUROPEAN
2207413-0101	TERMINAL ELECTRONICS, 115 VOLT - 825	DOMESTIC

REV STATUS OF SHEETS	REV	AA	AA	AA	V	V	V	V
	SH	1	1A	2	3	4	5	6

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

SEQ NO	PROCESS IDENT	PROCESS F-SPEC	CLASSIFICATION NO	CLASSIFICATION ADDITIONAL	NOTES
3	SLDR	127-02	00		20
2	SLDR	124-00	00		4
1	MARK	100-02	21	HEIGHT: 06; COLOR: BLACK	2 3

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

NEXT ASSY	USED ON
2207414	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN S. Stevens DATE 7-24-79
CHK Dave Stalnes 9-13-79
ENGR Alan Goodrum 9-18-79
APVD R. Nash 9-18-79
T Bradford 9-18-79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

TERMINAL ELECTRONICS

SIZE D FSCM NO 96214 DRAWING NO 2207413 FILMED
SCALE 1/1 SHEET 1 OF 7

LM

DWG NO	SH
2207413	1A

NOTES: UNLESS OTHERWISE SPECIFIED:

25 ROUTE JUMPER UNDER HEAT SINK FROM LOWER RIGHT LEG OF C204 TO LEFT LEG OF R133 AND RIGHT LEG OF R125

26 REMOVE SOLDER MASK FROM GROUND A BETWEEN U6 AND U112, SEE VIEW S SH4(C-5) ROUTE JUMPER UNDER HEAT SINK FROM E223 TO GROUND A PER VIEW S SH4(C-5)

27 INSTALL JUMPER ON COMPONENT SIDE OF BOARD FROM U110-PIN8 TO FEED THRU ABOVE U20-PIN 37

28 CUT THE RUN WHICH CONNECTS TO U112-PIN7, SEE VIEW S SH4(C-5) INSTALL JUMPER FROM U112-PIN7 TO U6-PIN8

29 SECURE BUS BAR (ITEM 208) WITH 1/4 INCH BEAD OF SILICONE RUBBER (ITEM 200) IN 7 PLACES AS SHOWN

30. ALL ASSEMBLIES MARKED REV B ARE REALLY REV C. REV C ASSEMBLIES HAVE AN ALTERNATE ROUTING FOR THE TRANSFORMER LEADS (ITEM 73) WHICH IS THE SAME AS FOR 999947 PRIOR TO REV K.

31. ADD CAPACITOR (C216) IN THE SAME HOLES AS THE REGULATOR LEADS (U205)

32. INSTALL JUMPERS USING BUS WIRE (ITEM 224) IN PLACE OF COMPONENTS C261 AND CR262.

33. INSTALL THE ONE BIT ROM, P/N 2361105-0001, IN SOCKET XU12 IN RO MACHINES THAT DO NOT HAVE THE DFC (MFG) OPTION. THIS ROM WILL BE REQUIRED ON 825 RO BOARDS THAT CONTAIN:
    A. ROM ADAPTOR BOARD, P/N 999962 OR
    B. ROMS 2207430-0001 AND -0002 IN SOCKETS XU9 AND XU10.

THE ONE BIT ROM WILL NO LONGER BE REQUIRED WHEN NEW ROMS, P/N 2207430-0003 AND -0004 BECOM AVAILABLE

34 INSTALL TWO JUMPERS ON COMPONENT SIDE OF BOARD. ONE IN THE PLACE OF R102 THE OTHER FROM R104 RIGHT END, TO FEED THRU JUST TO THE RIGHT OF U105-PIN 12.

35 MOUNT DIODE (ITEM 45) AS SHOWN ON SH4 VIEW T

36 MOUNT CAPACITOR (ITEM 150) AS SHOWN ON SH 4, SECTION U-U.

37 APPLY FOAM TAPE (ITEM 227) TO CRYSTAL (ITEM 207). PRESS DOWN TO SURFACE OF PWB UNTIL CONTACT IS MADE BETWEEN FOAM TAPE AND PWB (ITEM 1)

38 BEFORE SOLDERING SECOND GROUND WIRE, WRAP WIRE 2 OR 3 TIMES AROUND FIRST WIRE.

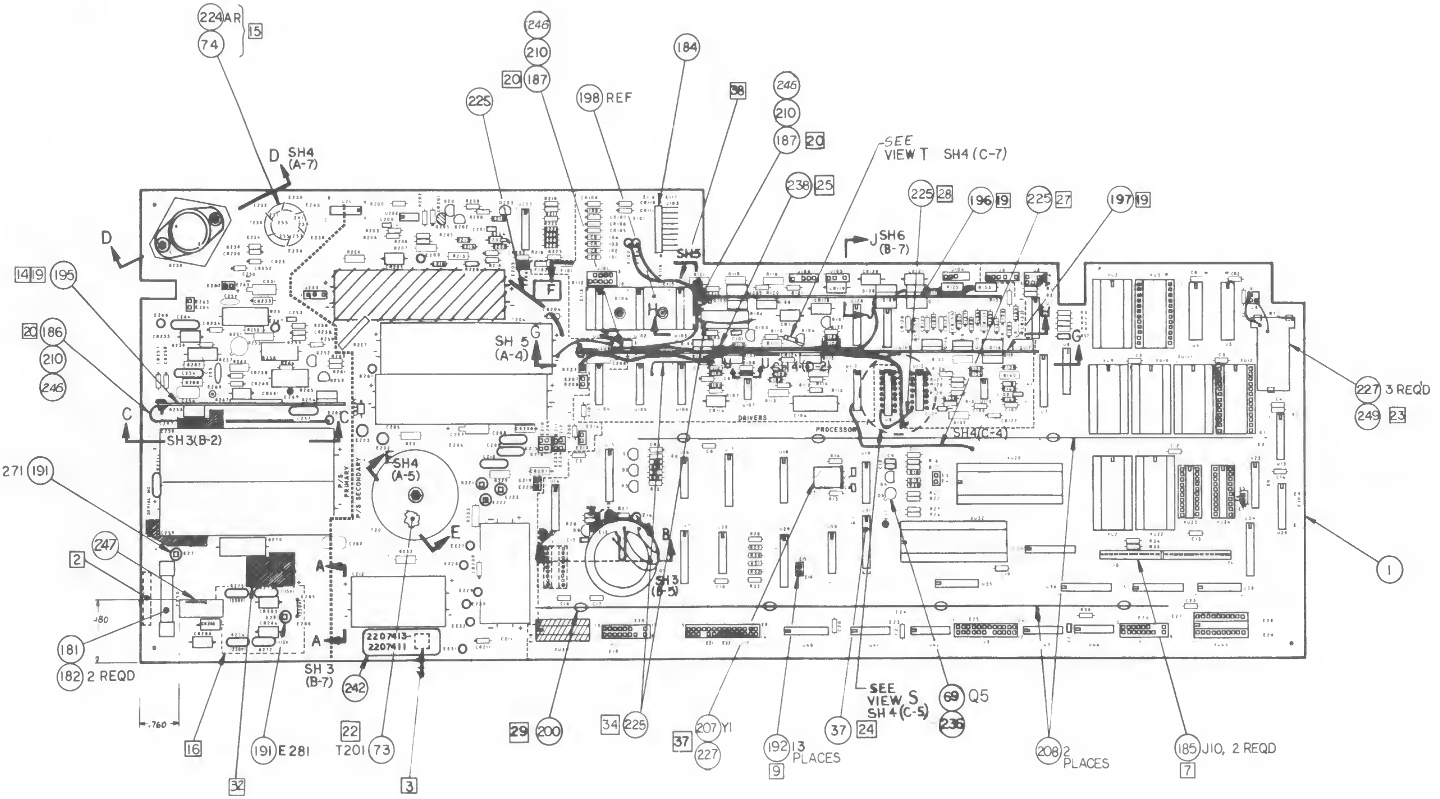
REVISIONS

REV	DESCRIPTION	DATE	APPROVED
T	CN465661 (D) M Kuehn (1) UPDATED REVISION STATUS BLOCK	2/10/81	DK Anderson
U	CN477280 (D) N. Hodds (1) LM REVISED (2) UPDATED REVISION STATUS BLOCK	2-27-81	
V	CN 465617 (D) J. Higginbotham (1) REV PER EXT ENG CHANGES	6-23-81	
W	CN 466134 (B) J. Higginbotham (1) UPDATED REV LVL BLK	6-23-81	
Y	CN 477609 (C) J. Higginbotham (1) REV NOTE 22	6-23-81	
AA	CN477603 (D) D. Howard (1) CHANGED NOTE 23 (2) UPDATED REV STATUS BLOCK.	10-19-81	
AB	CN 479166 (D) D. Howard (1) REVISED NOTE 22.	10-19-81	

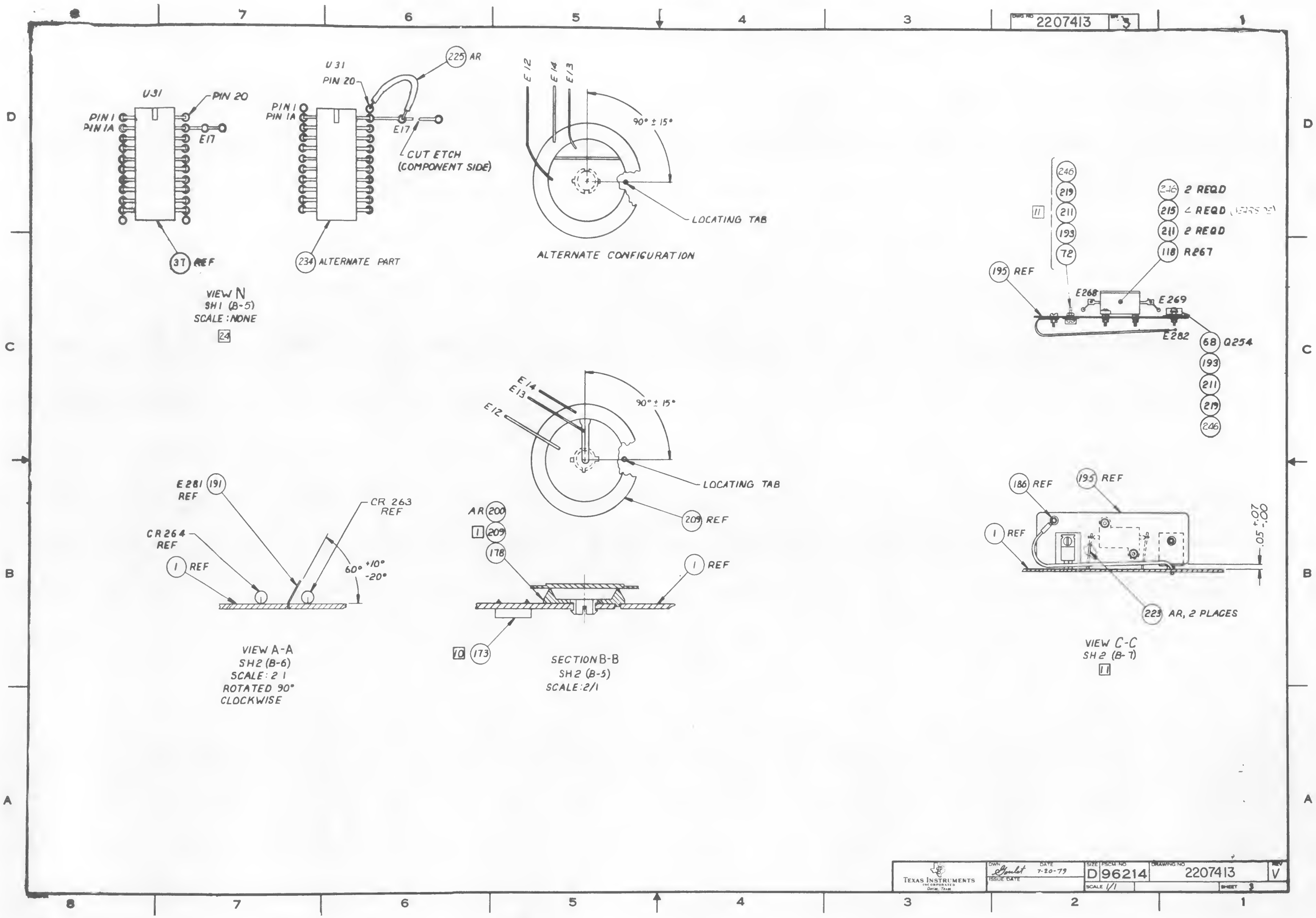
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN R Garrison DATE 8-10-79 ISSUE DATE	SIZE D	FSCM NO 96214	DRAWING NO 2207413	REV AA
		SCALE 1/1		SHEET 1A	

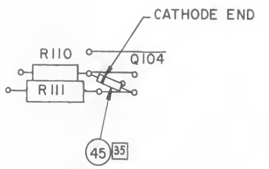
FILMED

2207413 2

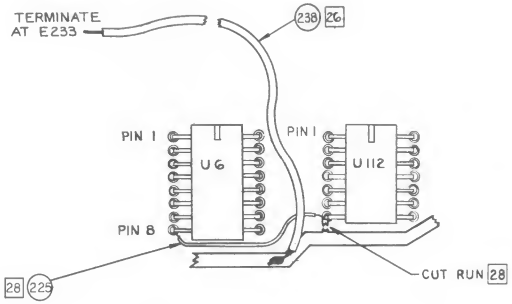


TEXAS INSTRUMENTS	DWN S. Stevens	DATE 7-24-79	SIZE D	FSCM NO 96214	DRAWING NO 2207413	REV AA
	ISSUE DATE		SCALE 1/1		SHEET 2	

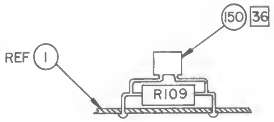

2207413
3
U31
PIN 20
PIN 1
PIN 1A
E17
37 REF
VIEW N
SH1 (B-5)
SCALE: NONE
24
U 31
PIN 20
PIN 1
PIN 1A
225 AR
E17
CUT ETCH
(COMPONENT SIDE)
234 ALTERNATE PART
E12
E14
E13
90° ± 15°
LOCATING TAB
ALTERNATE CONFIGURATION
E14
E13
E12
90° ± 15°
LOCATING TAB
209 REF
AR 200
1 209
178
1 REF
10 173
SECTION B-B
SH2 (B-5)
SCALE: 2/1
E281 191
REF
CR264
REF
CR 263
REF
1 REF
60° +10° -20°
VIEW A-A
SH2 (B-6)
SCALE: 2 1
ROTATED 90°
CLOCKWISE
246
219
211
193
72
11
246 2 REQD
215 2 REQD
211 2 REQD
118 R267
195 REF
E268
E269
E282
68 Q254
193
211
219
246
186 REF
195 REF
1 REF
.05 +.02 -.00
223 AR, 2 PLACES
VIEW C-C
SH2 (B-7)
11
TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas
DWN
Goulet
DATE
7-20-79
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2207413
REV V
SCALE 1/1
SHEET 3
D
C
B
A
1
2
3
4
5
6
7
8



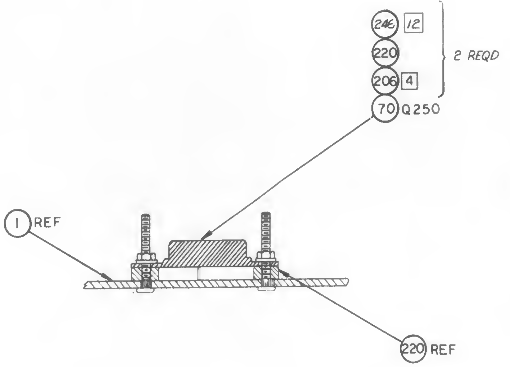
VIEW T
SHEET 2 (C-4)
SCALE : NONE



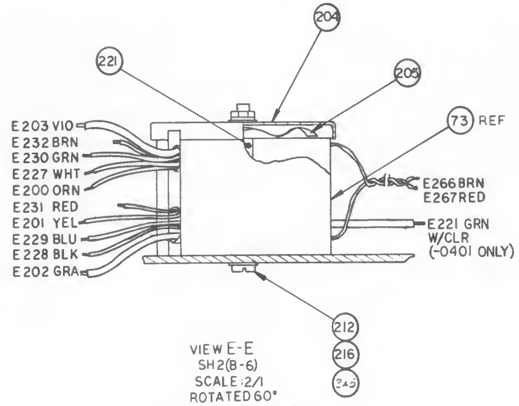
VIEW S
SH 2 (C-4)
SCALE: NONE



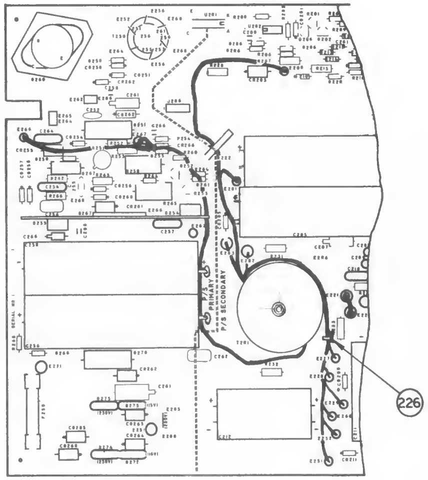
SECTION U-U
SH 2 (C-5)
SCALE: NONE



SECTION D-D
SH 2 (C-7)
SCALE: 2/1
ROTATED 25°
CLOCKWISE



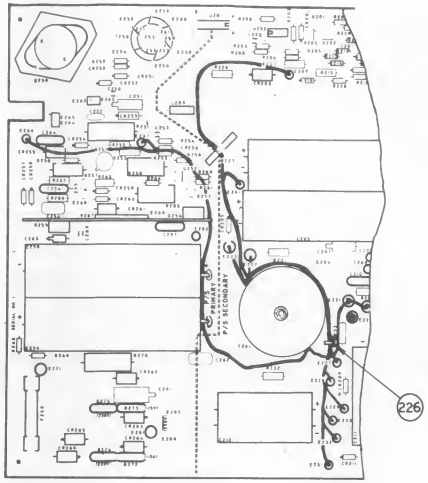
VIEW E-E
SH 2 (B-6)
SCALE: 2/1
ROTATED 60°
COUNTER-CLOCKWISE



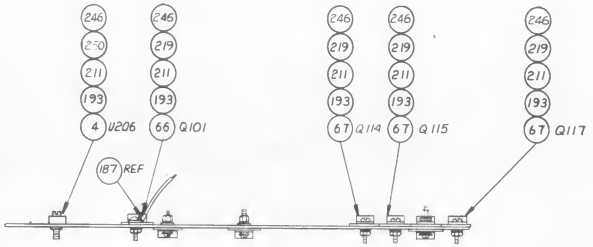
VIEW K 22
SH 2 (A-7)

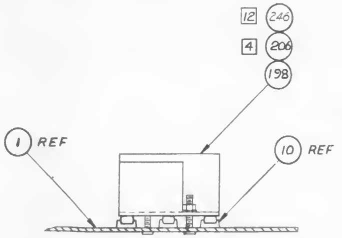
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN Goulet	DATE 7-20-79	SIZE D	FSCM NO 96214	DRAWING NO 2207413	REV V
	ISSUE DATE		SCALE 1/1			SHEET 4

DWG NO 2207413 SH 5

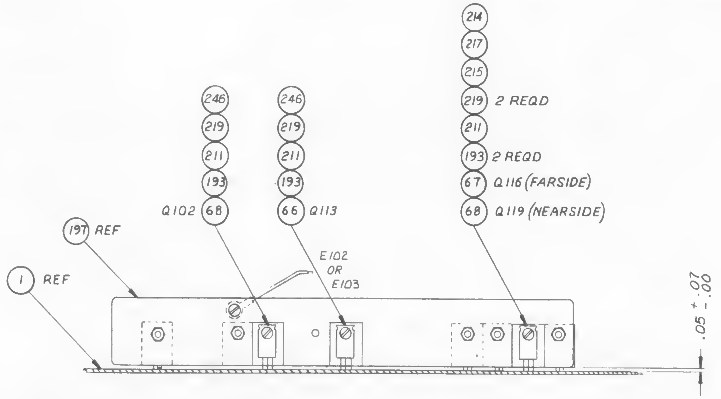


VIEW R 22





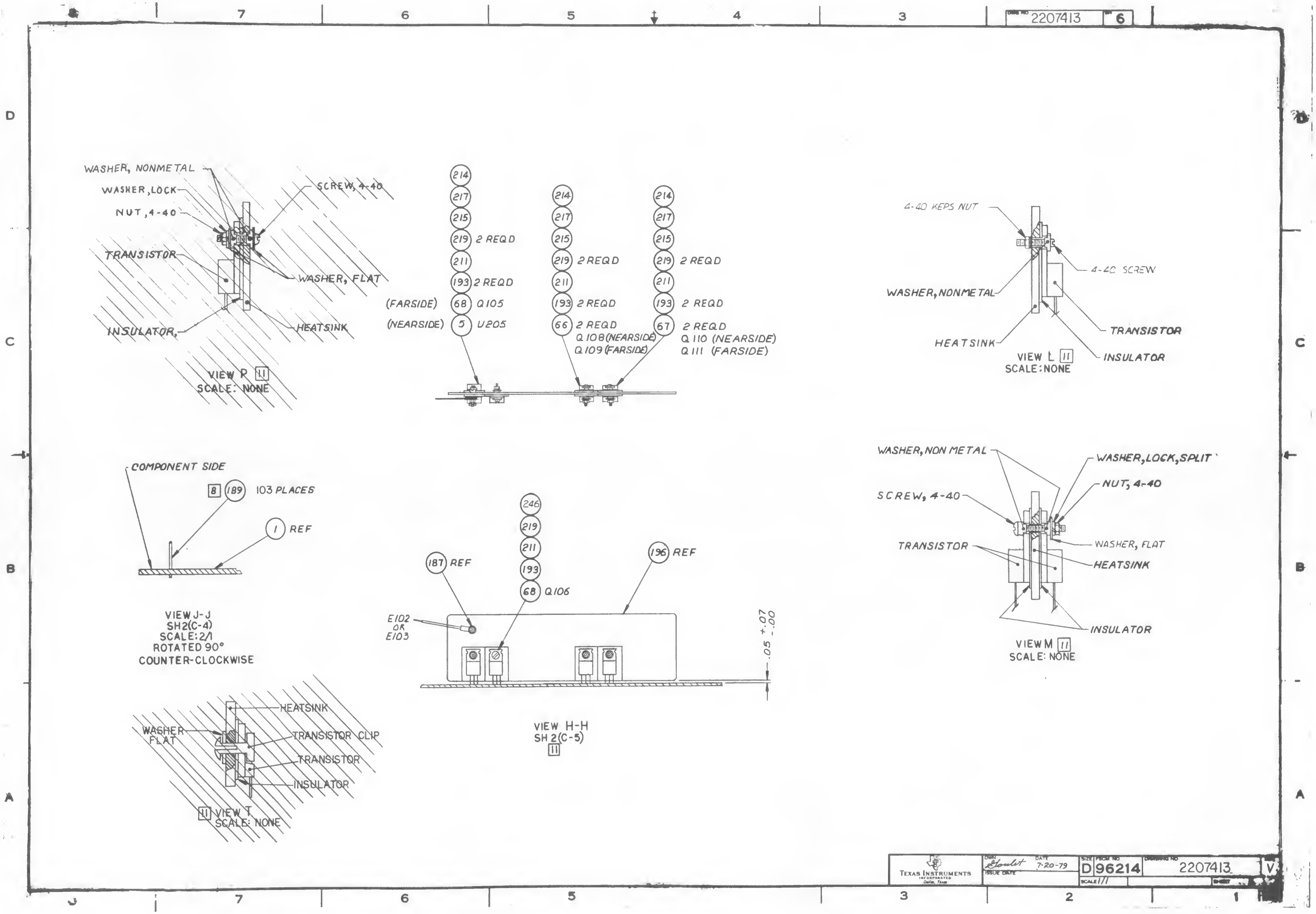
VIEW F-F
SH 2 (C-5)
ROTATED 180°



VIEW G-G
SH 2 (C-6)
11

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

DWN
DATE 7-20-79
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2207413
REV V
SCALE 1/1
SHEET 5


2207413
6
WASHER, NONMETAL
WASHER, LOCK
NUT, 4-40
SCREW, 4-40
TRANSISTOR
WASHER, FLAT
INSULATOR
HEATSINK
VIEW P 11
SCALE: NONE
214
217
215
219 2 REQD
211
193 2 REQD
(FARSIDE) 68 Q105
(NEARSIDE) 5 U205
214
217
215
219 2 REQD
211
193 2 REQD
66 2 REQD
Q108 (NEARSIDE)
Q109 (FARSIDE)
214
217
215
219 2 REQD
211
193 2 REQD
67 2 REQD
Q110 (NEARSIDE)
Q111 (FARSIDE)
4-40 KEPS NUT
4-40 SCREW
WASHER, NONMETAL
TRANSISTOR
HEATSINK
INSULATOR
VIEW L 11
SCALE: NONE
COMPONENT SIDE
8 189 103 PLACES
1 REF
VIEW J-J
SH2(C-4)
SCALE: 2/1
ROTATED 90°
COUNTER-CLOCKWISE
246
219
211
193
68 Q106
187 REF
196 REF
E102
OR
E103
.05 +.07 -.00
VIEW H-H
SH 2(C-5)
11
WASHER, NON METAL
WASHER, LOCK, SPLIT
NUT, 4-40
SCREW, 4-40
WASHER, FLAT
TRANSISTOR
HEATSINK
INSULATOR
VIEW M 11
SCALE: NONE
HEATSINK
WASHER FLAT
TRANSISTOR CLIP
TRANSISTOR
INSULATOR
11 VIEW T
SCALE: NONE
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN Goulet
DATE 7-20-79
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2207413
SCALE 1/1
SHEET
V
D
C
B
A
7
6
5
4
3
2
1

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION...........................
2207413-0101    AB        TERMINAL ELECTRONIC, 115V-825

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

0002        REF      2207411-0001   DIAG,LOGIC,DETAILED TERMINAL ELECT         EA

0021     00001.000   0996750-0001   IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD   EA
                                    1221-6750-000
0021A                               U11
                                    1221-6750-000
0022     00001.000   2207430-0001   IC,8K X 8 ROM, 825 TERMINAL                EA
                                    -    -    -000
0022A                               U9
                                    -    -    -000
0023     00001.000   2207430-0002   IC, 8K X 8 ROM,825 TERMINAL                EA

0023A                               U10

0025     00001.000   2210363-0001   IC, 1K X 8-BIT STATIC RAM                  EA
                                    0000-0000-000
0025A                               U2
                                    0000-0000-000
0073     00001.000   0999789-0001   TRANSFORMER,SWITCH MODE,820 PWR SUPPLY     EA
                                    GFSMFG-77-484-1
0073A                               T201
                                    GFSMFG-77-484-1
0183     00002.000   0972808-0001   THERMISTOR, DISC, 5 OHM                    EA
                                    5961-0000-000
0183A                               R272,R273
                                    5961-0000-000
0188     00001.000   0999869-0002   CABLE ASSY,SIGNAL/CHASSIS,GROUND-OPTION    EA
                                    1221-2869-027
0224     00000.200   0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER        FT
                                    -    -    -000
0237     00000.000   2207637-0002   MODIFICATION KIT, ROM ADAPTER, 825         EA
                                    1221-2637-000
0237A                               ITEM 237 MAY BE SUBSTITUTED
                                    1221-2637-000
0237B                               FOR ITEMS 22 AND 23
                                    1221-2637-000
0237C                               ONE ITEM 237 REPLACES BOTH
                                    1221-2637-000
0237D                               ITEM 22 AND ITEM 23
                                    1221-2637-000
0240     00001.000   0999947-0001   TERMINAL ELECTRONICS COMMON                EA
                                    1221-7947-080
0242     00001.000   2361104-0001   LABEL,PART NUMBER,825                      EA
                                    1221-1104-000
0243     00001.000   2210188-0011   SOCKET,DIP,14-PIN,LOW PROFILE              EA
                                    SEE T -I DRAWING
0243A                               TP7
                                    SEE T -I DRAWING
0244     00001.000   0972037-1910   NETWORK,RES  91    OHM 2% 16PIN 8ELEMENT   EA
                                    BEC    - 898-3-R91
0244A                               U14
                                    BEC    - 898-3-R91
9999     00003.000   0239999-9999   COST, SHRINKAGE                            EA
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2207413-0201    AB        TERMINAL ELECTRONIC, 230V-825

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION........................... UM

0002        REF        2207411-0001   DIAG,LOGIC,DETAILED TERMINAL ELECT         EA

0021      00001.000    0996750-0001   IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD   EA
                                      1221-6750-000
0021A                                 U11
                                      1221-6750-000
0022      00001.000    2207430-0001   IC,8K X 8 ROM, 825 TERMINAL                EA
                                      -    -    -000
0022A                                 U9
                                      -    -    -000
0023      00001.000    2207430-0002   IC, 8K X 8 ROM,825 TERMINAL                EA

0023A                                 U10

0025      00001.000    2210363-0001   IC, 1K X 8-BIT STATIC RAM                  EA
                                      0000-0000-000
0025A                                 U2
                                      0000-0000-000
0073      00001.000    0999789-0001   TRANSFORMER,SWITCH MODE,820 PWR SUPPLY     EA
                                      GFSMFG-77-484-1
0073A                                 T201
                                      GFSMFG-77-484-1
0183      00002.000    0972808-0001   THERMISTOR, DISC, 5 OHM                    EA
                                      5961-0000-000
0183A                                 R274 R275
                                      5961-0000-000
0188      00001.000    0999869-0002   CABLE ASSY,SIGNAL/CHASSIS,GROUND-OPTION    EA
                                      1221-2869-027
0224      00000.300    0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER        FT
                                      -    -    -000
0237      00000.000    2207637-0002   MODIFICATION KIT, ROM ADAPTER, 825         EA
                                      1221-2637-000
0237A                                 ITEM 237 MAY BE SUBSTITUTED
                                      1221-2637-000
0237B                                 FOR ITEMS 22 AND 23
                                      1221-2637-000
0237C                                 ONE ITEM 237 REPLACES BOTH
                                      1221-2637-000
0237D                                 ITEM 22 AND ITEM 23
                                      1221-2637-000
0240      00001.000    0999947-0001   TERMINAL ELECTRONICS COMMON                EA
                                      1221-7947-080
0242      00001.000    2361104-0001   LABEL,PART NUMBER,825                      EA
                                      1221-1104-000
0243      00001.000    2210188-0011   SOCKET,DIP,14-PIN,LOW PROFILE              EA
                                      SEE T -I DRAWING
0243A                                 TP7
                                      SEE T -I DRAWING
0244      00001.000    0972037-1910   NETWORK,RES  91    OHM 2% 16PIN 8ELEMENT   EA
                                      BEC    - 898-3-R91
0244A                                 U14
                                      BEC    - 898-3-R91
9999      00003.000    0239999-9999   COST, SHRINKAGE                            EA
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV         DESCRIPTION...........................
2207413-0401    AB         TERMINAL ELECTRONICS, 230V (BPO)

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0002        REF      2207411-0001   DIAG,LOGIC,DETAILED TERMINAL ELECT          EA

0021      00001.000  0996750-0001   IC,TMS-4732NLZA3226,4096 X 8-BIT PREPGMD   EA
                                    1221-6750-000
0021A                               U11
                                    1221-6750-000
0022      00001.000  2207430-0001   IC,8K X 8 ROM, 825 TERMINAL                 EA
                                    -    -     -000
0022A                               U9
                                    -    -     -000
0023      00001.000  2207430-0002   IC, 8K X 8 ROM,825 TERMINAL                 EA

0023A                               U10

0025      00001.000  2210363-0001   IC, 1K X 8-BIT STATIC RAM                   EA
                                    0000-0000-000
0025A                               U2
                                    0000-0000-000
0073      00001.000  0999892-0001   TRANSFORMER,SWITCHMODE,SCREENED,230VAC      EA
                                    GFSMFG-78-491-1
0073A                               T201
                                    GFSMFG-78-491-1
0183      00002.000  0972808-0001   THERMISTOR, DISC, 5 OHM                     EA
                                    5961-0000-000
0183A                               R274 R275
                                    5961-0000-000
0223      00000.200  0411400-0018   WIRE,BARE TINNED,18AWG, COPPER BUS          FT
                                    IWP    -18-630
0224      00000.300  0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER         FT
                                    -    -     -000
0237      00000.000  2207637-0002   MODIFICATION KIT, ROM ADAPTER, 825          EA
                                    1221-2637-000
0237A                               ITEM 237 MAY BE SUBSTITUTED
                                    1221-2637-000
0237B                               FOR ITEMS 22 AND 23
                                    1221-2637-000
0237C                               ONE ITEM 237 REPLACES BOTH
                                    1221-2637-000
0237D                               ITEM 22 AND ITEM 23
                                    1221-2637-000
0240      00001.000  0999947-0001   TERMINAL ELECTRONICS COMMON                 EA
                                    1221-7947-080
0242      00001.000  2361104-0001   LABEL,PART NUMBER,825                       EA
                                    1221-1104-000
0243      00001.000  2210188-0011   SOCKET,DIP,14-PIN,LOW PROFILE               EA
                                    SEE T -I DRAWING
0243A                               TP7
                                    SEE T -I DRAWING
0244      00001.000  0972037-1910   NETWORK,RES  91    OHM 2% 16PIN 8ELEMENT   EA
                                    BEC    - 898-3-R91
0244A                               U14
                                    BEC    - 898-3-R91
9999      00003.000  0239999-9999   COST, SHRINKAGE                             EA
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LIST OF MATERIALS

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02/05/83

PART NUMBER   REV       DESCRIPTION............................
2207413-0801   AB       TERMINAL ELECTRONICS 115V KATAKANA

ITEM.    QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

0002       REF      2207411-0001   DIAG,LOGIC,DETAILED TERMINAL ELECT         EA

0021     00001.000  0999906-0002   IC,4KX8 ROM,KATAKANA DOTS                  EA

0021A                              U11

0022     00001.000  2207448-0001   IC,8KX8 ROM,KATAKANA #1                    EA
                                   1221-     -000
0022A                              U9
                                   1221-     -000
0023     00001.000  2207448-0002   IC,8KX8 ROM,KATAKANA #2                    EA
                                   1221-     -000
0023A                              U10
                                   1221-     -000
0025     00001.000  2210363-0001   IC, 1K X 8-BIT STATIC RAM                  EA
                                   0000-0000-000
0025A                              U2
                                   0000-0000-000
0073     00001.000  0999789-0001   TRANSFORMER,SWITCH MODE,820 PWR SUPPLY     EA
                                   GFSMFG-77-484-1
0073A                              T201
                                   GFSMFG-77-484-1
0183     00002.000  0972808-0001   THERMISTOR, DISC, 5 OHM                    EA
                                   5961-0000-000
0183A                              R272,R273
                                   5961-0000-000
0188     00001.000  0999869-0002   CABLE ASSY,SIGNAL/CHASSIS,GROUND-OPTION    EA
                                   1221-2869-027
0224     00000.200  0411400-0022   WIRE 22AWG ELETRO-TIN-PLATED,COPPER        FT
                                   -    -    -000
0240     00001.000  0999947-0001   TERMINAL ELECTRONICS COMMON                EA
                                   1221-7947-080
0242     00001.000  2361104-0001   LABEL,PART NUMBER,825                      EA
                                   1221-1104-000
0243     00001.000  2210188-0011   SOCKET,DIP,14-PIN,LOW PROFILE              EA
                                   SEE T -I DRAWING
0243A                              TP7
                                   SEE T -I DRAWING
0244     00001.000  0972037-1910   NETWORK,RES  91    OHM 2% 16PIN 8ELEMENT   EA
                                   BEC    - 898-3-R91
0244A                              U14
                                   BEC    - 898-3-R91
9999     00003.000  0239999-9999   COST, SHRINKAGE                            EA
```

DWG NO 999913 SH

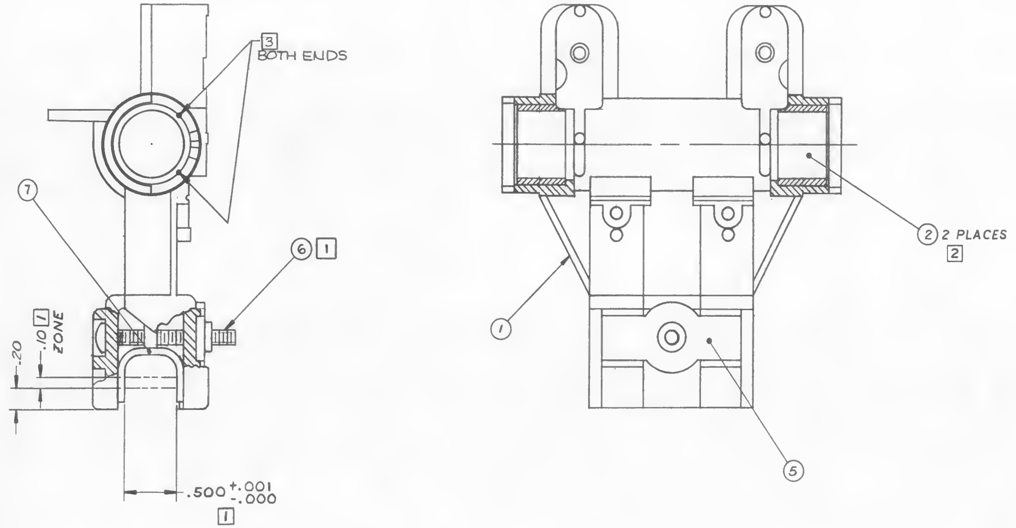
REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN477837 (D) M. Kuhn (1)ON LM ITEM 2 WAS P/N 972405-0200	10/1/81	R Dalyen
B	CN502440(D) D Howard	8-23-82	

(1)ON LM: DELETE ITEMS 3 & 4 (2) REV NOTE 2 (3) ADDED NOTE 3 (4) REV DWG C-4,5,&7

NOTES: UNLESS OTHERWISE SPECIFIED:

1. ADJUST SCREW (ITEM 6) TO ACHIEVE SPACING IN ZONE INDICATED
2. BEARINGS (ITEM 2) SHALL BE INSTALLED SO THAT ASSY SLIDES IN BOTH DIRECTIONS ON A .6248±.0001 DIA FINISH ROD WITH 8 OZ MAX FORCE APPLIED
3. STAKE CARRIAGE APPROX AS SHOWN TO RETAIN BEARING IN HOUSING



-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

994183	8754
999689	8740
NEXT ASSY	USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125: +.004 -.001	.126 THRU .250: +.005 -.001	.251 THRU .500: +.006 -.001
.501 THRU .750: +.008 -.001	.751 THRU 1.000: +.010 -.001	1.001 THRU 2.000: +.012 -.001

DWN		DATE 7/25/78
CHK	Louis Villa	8/16/78
ENGR	Francis G. Lilleman	16 AUG 78
APVD	Jim Davis	8/16/78
QA	C Bradford	8/16/78
CONTR		8/16/78
RLSE	D. Stalner	8/16/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CARRIAGE ASSY,
PRINTHEAD

SIZE D FSCM NO 96214 DRAWING NO 999913 FILMED
SCALE 2/1 SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

T1-7814H

300 LM

LIST OF MATERIALS

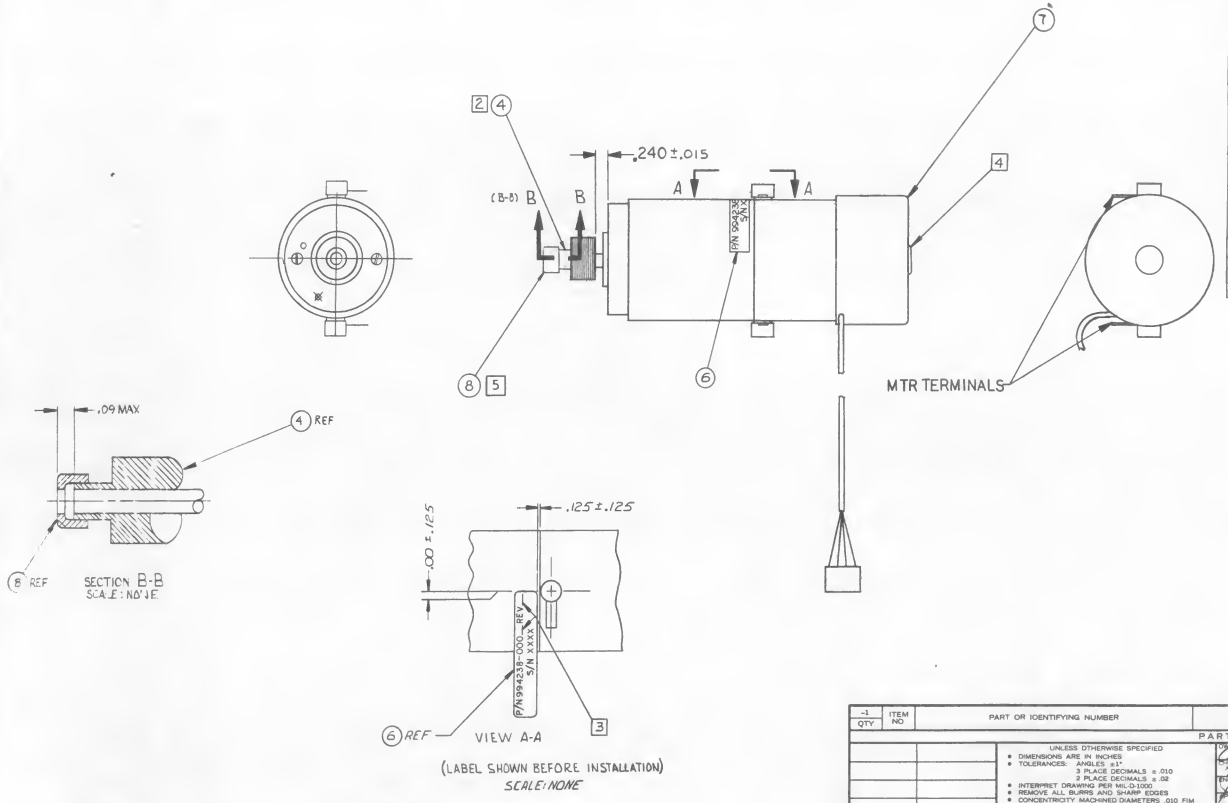
02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999913-0001	B	CARRIAGE ASSY, PRINTHEAD

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	0994487-0001	CARRIAGE, PRINTHEAD 1255-0040-025	EA
0002	00002.000	2360072-0001	BEARING, UPPER CARRIAGE 1255-1060-010	EA
0005	00001.000	0994489-0001	PLATE, NUT 1680-0489-017	EA
0006	00001.000	0972988-0035	SCREW 6-32 X 1.25 PAN HEAD CRES	EA
0007	00001.000	0999912-0001	BEARING,LOWER-CARRIAGE 1255-1044-018	EA

NOTES: UNLESS OTHERWISE SPECIFIED:

1 MOUNTING HARDWARE PROVIDED WITH ITEM 1 WHEN USED AS ALTERNATE TO ITEM 7
2 ALIGN FLATS ON MTR SHAFT AND CAPSTAN
3 MARK ASSY NUMBER AND REV ON ITEM 6 PER PROCESS 1 OR 2. MARK SITE/DATE CODE ON ITEM 6 PER PROCESS 1 OR 2 AND PER ITEM 5, PARAGRAPH 4.0 WHERE SHOWN.
4 REMOVE HOLE PLUG/COVER SO MOTOR SHAFT CAN BE SUPPORTED WHILE INSTALLING CAPSTAN. REPLACE AFTER CAPSTAN INSTALLATION.
5 INSTALL ON CAPSTAN PRIOR TO INSTALLING CAPSTAN ON MOTOR



DWG NO	SH
994238	

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
C	416975(C) [illegible] 10-15-76 LM-0001 DELETED ITEMS 1,2,5,6,7,9,11 THRU 17, & 19 ADDED ITEM 1 (P/N996336-1, QTY 1) LM-0002 DELETED ITEMS 1,2,5,THRU 19 ADDED ITEM 1 (P/N996336-1, QTY 1)		
	FORMAL RELEASE		
D	CN414887 Linda Kuo NOTE 3 WAS MARK PER ITEM 5 AND PROCESS 1 WHERE SHOWN	3/7/77	
E	CN421017 C Eberwine 1) ADDED REFERENCES TO ITEM 6 IN NOTE 3 2) ADDED ITEM 6 TO LM	3-22-77	
F	CN424044 Larry King 1) ITEMS 1 & 3 QTY WAS 1 (2) ADD ITEMS 1A,B,C & 3ABC (3) ADD ITEM 7 (4) ADD TO NOTE 1---WHEN USED---ITEM 7 (5) F/D REPLACED ITEMS 1 & 3 WITH ITEM 7	7-18-77	
G	CN439792 (C) R Coleman (1) ADDED -3 + -4 TO LM AND F/D	6/7/78	
H	CN437156 (D) J. BAIZA (1) ADDED BOSS CAP TO CAPSTAN (2) ADDED NOTE 5 (3) CHANGE .240±.010 TO .240±.015 (4) ADDED ITEM 8 TO ALL L/M'S -0001 THRU -0004	8/16/78	
J	CN445476 (B) R Coleman (1) ADDED ITEM 9 TO -3 AND -4 (2) ADDED ITEM 9 TO F/D + REL DIMS	10/31/78	
K	CN439544 (C) R Coleman (1) ADDED VIEW A (2) REV NOTE 3 (3) ADDED PROC 2 AND DELETED "OR WHT" FROM PROCESS 1	11/20/78	
L	CN457941 (D) M Kuhn (1) DELETED ITEM 9 ON ALL LM'S (2) ADDED SECTION B-B	8/21/80	
M	CN477255 (D) J. Higginbotham (1) ON ALL DASH NO.S: ITEM 6 WAS 232208-7000	3-13-81	

PART NUMBER	DESCRIPTION
994238-0004	CARRIAGE DRIVE MOTOR ASSY 10 + 16.5 CPI (820)
994238-0003	CARRIAGE DRIVE MOTOR ASSY 10 CPI (820)
994238-0002	CARRIAGE DRIVE MOTOR ASSEMBLY -10 & 16.5 CPI
994238-0001	CARRIAGE DRIVE MOTOR ASSEMBLY -10 CPI

SEQ NO	PROCESS IDENT	PROCESS F-SPEC	CLASSIFICATION NO	CLASSIFICATION ADDITIONAL	NOTES
2	MARK	100-00		HEIGHT .10, COLOR BLK	3
1	MARK	100-02	21	HEIGHT .12, COLOR BLK ~~OR WHT~~	3

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS. SEE TI DRAWING 729467

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

APPLICATION

NEXT ASSY	USED ON
999689	8740
994183	8733

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  - 3 PLACE DECIMALS ±.010
  - 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

		DATE
DWN	Arthur Clark	10/5/76
CHK		22 OCT 76
ENGR		10/22/76
APVD		11/4/76
QA		11-4-76
CONTR		11/4/76
RLSE		11/23/76

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

MOTOR ASSY,
CARRIAGE DRIVE

SIZE	FSCM NO	DRAWING NO
D	96214	994238

FILMED

SCALE 1/1 SHEET

LM

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0994238-0001    M         CARRIAGE DRIVE MOTOR ASSY -10 CPL

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0001      00000.000  0996336-0001   ENCODER,SHAFT                              EA

0001A                               ITEM 1 CAN BE USED WITH

0001B                               ITEM 3 AS AN ALTERNATE TO

0001C                               ITEM 7

0003      00000.000  0994206-0001   MOTOR-D.C. SERVO 25 AMPERES                EA
                                    ELR    - 7-1417
0003A                               ITEM 3 CAN BE USED WITH -
                                    ELR    - 7-1417
0003B                               ITEM 1 AS AN ALTERNATE TO
                                    ELR    - 7-1417
0003C                               ITEM 7
                                    ELR    - 7-1417
0004      00001.000  0994177-0001   CAPSTAN,MOTOR                              EA
                                    1255-0004-027
0005       REF       0994396-9901   PROCEDURE,SITE & DATE CODE SERIALIZATION   EA

0006      00001.000  0232208-3500   LABEL WIRE MARKER DATABS VINYL CLOTH       SH
                                    1286-2208-000
0007      00001.000  0994437-0001   ENCODER/MOTOR ASSEMBLY                     EA

0008      00001.000  2210037-0001   FASTENER, PLASTIC BOSS                     EA
                                    CAPSYS-GTC204-213
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02/05/83

PART NUMBER    REV        DESCRIPTION............................
0994238-0002    M         CARRIAGE DRIVE MOTOR ASSY -10 & 16.5 CPI

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0001      00000.000  0996336-0002   ENCODER,SHAFT                              EA

0001A                               ITEM 1 CAN BE USED WITH

0001B                               ITEM 3 AS AN ALTERNATE TO

0001C                               ITEM 7

0003      00000.000  0994206-0001   MOTOR-D.C. SERVO 25 AMPERES                EA
                                    ELR    - 7-1417
0003A                               ITEM 3 CAN BE USED WITH -
                                    ELR    - 7-1417
0003B                               ITEM 1 AS AN ALTERNATE TO
                                    ELR    - 7-1417
0003C                               ITEM 7
                                    ELR    - 7-1417
0004      00001.000  0994177-0001   CAPSTAN,MOTOR                              EA
                                    1255-0004-027
0005       REF       0994396-9901   PROCEDURE,SITE & DATE CODE SERIALIZATION   EA

0006        AR       0232208-7000   LABEL 1X3INS RECTL SELF-ADHESIVE           PX
                                    DEN    -43551
0007      00001.000  0994437-0002   ENCODER/MOTOR ASSEMBLY                     EA

0008      00001.000  2210037-0001   FASTENER, PLASTIC BOSS                     EA
                                    CAPSYS-GTC204-213
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LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
0994238-0003    M         CARRIAGE DRIVE MOTOR ASSY-10 CPI (820)

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001      00000.000  0996336-0003   ENCODER,SHAFT TWO QDRTR AT 288 PUL P/REV  EA
                                    001255-
0001A                               ITEM 1 CAN BE USED WITH
                                    001255-
0001B                               ITEM 3 AS AN ALTERNATE TO
                                    001255-
0001C                               ITEM 7
                                    001255-
0003      00000.000  0994206-0001   MOTOR-D.C. SERVO 25 AMPERES               EA
                                    ELR    - 7-1417
0003A                               ITEM 3 CAN BE USED WITH
                                    ELR    - 7-1417
0003B                               ITEM 1 AS AN ALTERNATE TO
                                    ELR    - 7-1417
0003C                               ITEM 7
                                    ELR    - 7-1417
0004      00001.000  0994177-0001   CAPSTAN,MOTOR                             EA
                                    1255-0004-027
0005       REF       0994396-9901   PROCEDURE,SITE & DATE CODE SERIALIZATION  EA

0006      00001.000  0232208-3500   LABEL WIRE MARKER DATABS VINYL CLOTH      SH
                                    1286-2208-000
0007      00001.000  0994437-0003   ENCODER/MOTOR ASSEMBLY-19.0"CA LG         EA

0008      00001.000  2210037-0001   FASTENER, PLASTIC BOSS                    EA
                                    CAPSYS-GTC204-213
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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
0994238-0004    M         CARRIAGE DR  MOTOR ASSY  10&16.5CPI(820)

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001      00000.000  0996336-0004   ENCODER,SHAFT FOUR QDRTR,2/288 2/475 PUL  EA
                                    001255-
0001A                               ITEM 3 CAN BE USED WITH
                                    001255-
0001B                               ITEM 1 AS AN ALTERNATE TO
                                    001255-
0001C                               ITEM 7
                                    001255-
0003      00000.000  0994206-0001   MOTOR-D.C. SERVO 25 AMPERES               EA
                                    ELR    - 7-1417
0003A                               ITEM 3 CAN BE USED WITH
                                    ELR    - 7-1417
0003B                               ITEM 1 AS AN ALTERNATE TO
                                    ELR    - 7-1417
0003C                               ITEM 7
                                    ELR    - 7-1417
0004      00001.000  0994177-0001   CAPSTAN,MOTOR                             EA
                                    1255-0004-027
0005       REF       0994396-9901   PROCEDURE,SITE & DATE CODE SERIALIZATION  EA

0006      00001.000  0232208-3500   LABEL WIRE MARKER DATABS VINYL CLOTH      SH
                                    1286-2208-000
0007      00001.000  0994437-0004   ENCODER/MOTOR ASSEMBLY-19.0"CA LG         EA

0008      00001.000  2210037-0001   FASTENER, PLASTIC BOSS                    EA
                                    CAPSYS-GTC204-213
```

NOTES. UNLESS OTHERWISE SPECIFIED:

1. COLOR (BLACK, TYPE 6 OR WHITE, TYPE 9) SHALL CONTRAST COLOR OF ITEM 3.
2. SUPPORT SHAFT OF FAN (ITEM 1) AXIALLY WHILE INSTALLING FAN BLADE (ITEM 2)
3. ~~ADD TUBING (ITEM 9) TO SHIELD CABLE TO BE FLUSH TO CONNECTOR (ITEM 3) AND ALLOW ONE-TENTH INCH MAX GAP BETWEEN MOTOR SLEEVING~~
4. INSTALL KEY (ITEM 5) IN POSITION P203-3
5. PIN 1 IDENTIFIER IS VENDOR NAME MOLDED INTO HOUSING

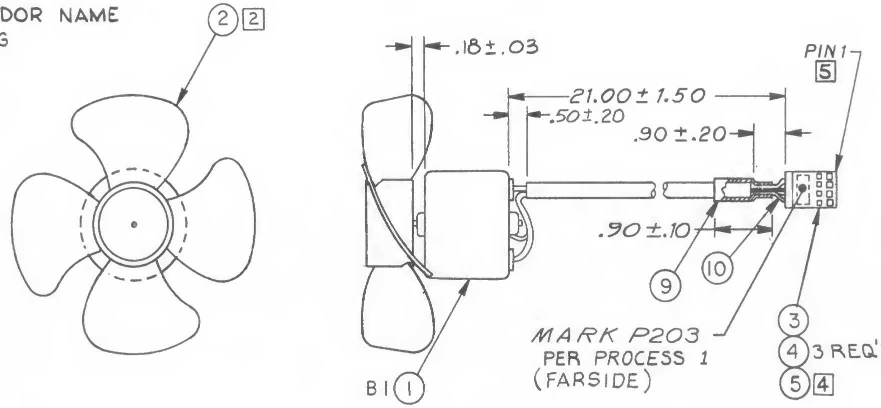
WIRING LIST

WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	REMARKS	ITEM NO
1	FAN MOTOR	B1-RED	P203-1	+12 VOLTS	1
2	FAN MOTOR	B1-BLACK	P203-2	GND	1
3	FAN MOTOR	B1-SHIELD	P203-4 3	SHIELD	1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN430882 R. Nelson LM UPDATES	3/17/78	MRW
B	CN439701 J.CLARK 1.) IN NOTE 1 ITEM 3 WAS ITEM 4, IN NOTE 3 ITEM 9 WAS WAS ITEM 7	5/15/78	J. Espinoza
C	CN439734 J.CLARK 1.) ZB-2 FARSIDE WAS NEARSIDE	5/30/78	J. Espinoza
D	CN445488 C. Holcombe 1.) Z C-2 DIM. WAS 24.00 ± .50 2.) DELETED FLAG NOTE 3 3.) LM QTY OF ITEM 9 WAS .04 FT. 4.) ADDED ITEM 10 5.) CHANGED PICTORIAL TO REFLECT ITEM CHANGES.	9-11-78	J. Espinoza
E	CN445489 L.O. Zepeda 1) Z C-3 DIM .18 ± .03 WAS .12	10/21/78	L. Villa
F	CN443618 B.TAYLOR ITEM 5 P/N 996497-1 WAS P/N 972599-1	4/11/79	J. Espinoza
G	CN458473 (E) R. Higginbotham (1) ITEM 10 P/N WAS 0410499-0008	6/13/80	[illegible]
H	CN465612 (D) J. Higginbotham (1) ADDED -2 LM (2) ADDED P/N, DESC. BLK.	1-26-81	E. Dodson
J	CN495686 (D) M.DURHAM (1) ADDED -5002 LM (2) REVISED -0002 LM	9-9-82	E. Dodson
K	CN494794 (D) G. Plunkett (1) Z C-2, DIM .90 ± .20 WAS .50 ± .20 (2) Z C-3, ADDED DIM .50 ± .20	2-24-83	B. Velelo

26



PART NUMBER	DESCRIPTION
0999819-5002	BULK CABLE ASSY MATERIAL FOR -0002
0999819-0002	FAN ASSEMBLY-10,000 HR
0999819-0001	FAN ASSEMBLY

618666

PARTS LIST

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN	S. Tierney	10-21-77
CHK	M. Wolf	3/17/78
ENGR	[illegible]	3/21/78
APVD	[illegible] Davis	3/21/78
QA	[illegible]	
CONTR	[illegible]	3/27/78
RLSE	[illegible]	3/27/78

NEXT ASSY	USED ON
999690	8740

APPLICATION

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas

FAN ASSEMBLY

SIZE C FSCM NO 96214 DRAWING NO 999819

SCALE NONE SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
1	MARK	100-07	710		1

PROCESS CLASSIFICATION

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-9925 H

300

LM

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999819-0001     K        FAN ASSEMBLY

ITEM.      QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0001       00001.000   0972486-0004    MOTOR,FAN .12VDC 170MA CABLE LG 21"       EA
                                       CANON -CK35-T19A
0001A                                  B1
                                       CANON -CK35-T19A
0002       00001.000   0996515-0001    FAN BLADE,3-IN X.078 DIA HUB BORE         EA

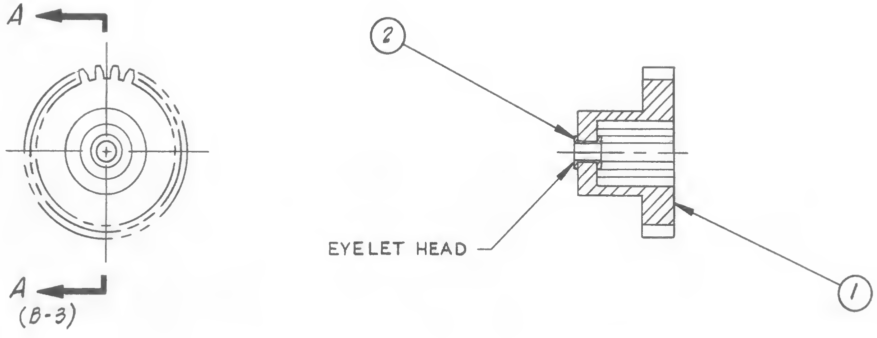
0003       00001.000   0972484-0004    CONNECTOR HOUSING 4 CONTACT               EA
                                       TI1    --87175-0
0003A                                  P203
                                       TI1    --87175-0
0004       00003.000   0972104-0001    CONTACT ELEC-LOCKING,WIRE-TO.025 SQ POST  EA
                                       AMP    - 87124-1
0005       00001.000   0996497-0001    KEYING PLUG CONNECTOR                     EA
                                       086286--1
0009       00000.080   0972146-0004    TUBING,.020THK X 1/8 HT SHRNKABLE .125ID  FT
                                       003890-P0135125C1/16"
0010       00000.040   0972436-0009    INSUL SLEEVING,#14 .016THK .066ID         FT
                                       003890-HT-105C-14
```

NOTES, UNLESS OTHERWISE SPECIFIED:

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 428952 LM UPDATES	10/28/77	

5

22



SECTION A-A
(B-4)

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999689	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU .125 +.004 -.001	.126 THRU 250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -001

	DATE
DWN	10-3-77
CHK	10/28/77
ENGR	31 OCT 77
APVD	10/31
QA	11/1/77
CONT	10/31/77
RLSE	11/4/77

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

GEAR ASSY,
PAPER ADVANCE

SIZE	FSCM NO	DRAWING NO
C	96214	999780

SCALE 2/1 SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-9925H

DWG NO 999780 SH

30

LM 1

FILMED

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV       DESCRIPTION.............................
0999780-0001    A        GEAR  ASSY, PAPER ADVANCE

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

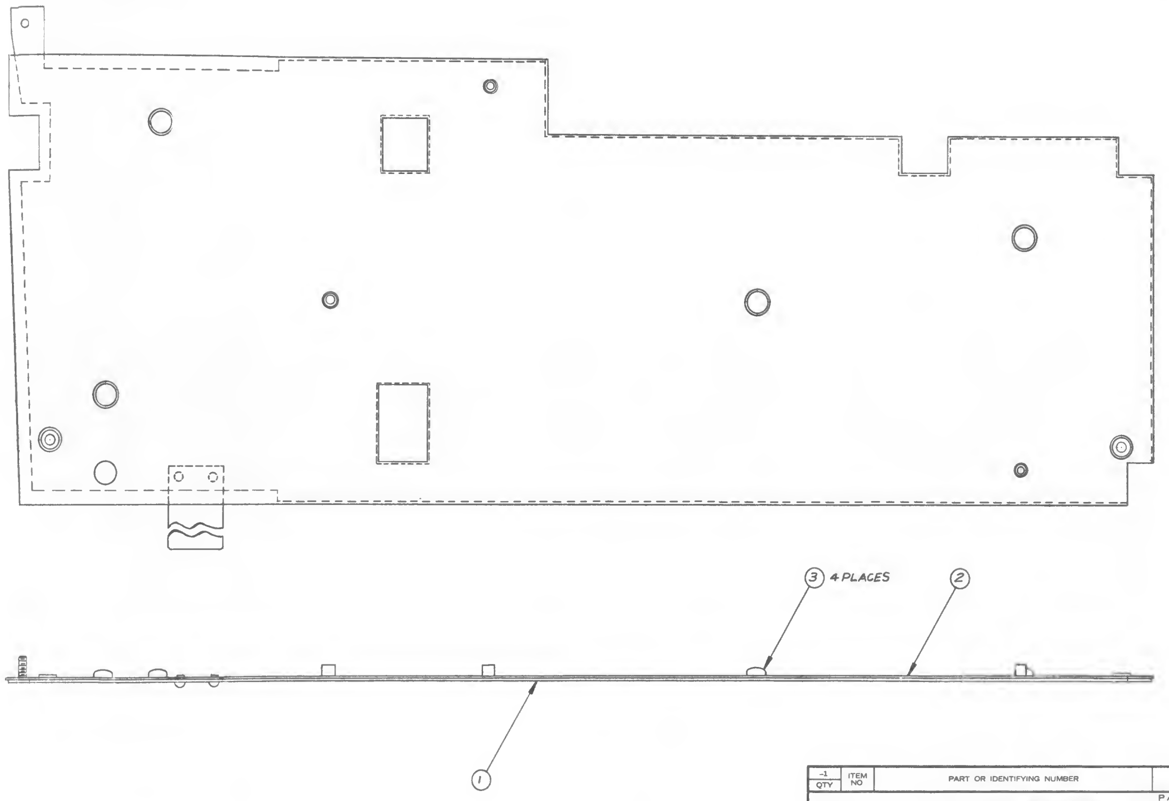
0001      00001.000   0999728-0001   GEAR, PAPER ADVANCE                      EA
                                     1255-1013-020
0002      00001.000   0085936-0016   EYELET .121 BARREL OD X.156 LG FLANGE    EA
                                     USH    - #SE-45
```

DWG NO 999872 SH

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 445415 L. Espeda 1) ADDED GROUND STRAP TO PICTORIAL, Z B-7	11-28-78	
B	CN 469163 (D) K. Nguyen 4-7-80 (1) REVISED NOTE 1 (2) ADDED ITEM 4	4-14-80	S Dobson

NOTES: UNLESS OTHERWISE SPECIFIED:

1. INSTALL INSULATOR (ITEM 2) TO GROUND PLANE (ITEM 1) USING ITEM 4 APPLY GLUE (ITEM 4) TO INSULATOR (ITEM 2) AND INSTALL WHILE WET.
2. INSTALL BUMPER (ITEM 3) TO GROUND PLANE (ITEM 1) USING POSITION HOLES IN INSULATOR (ITEM 2).



-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999820	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED

- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU 500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

DWN	Bradley B. Gibbs	DATE 3/20/78
CHK	Matt Way	5/9/78
ENGR		5/11/78
APVD	Jim Davis	5/12/78
QA		5/15/78
CONTR		5/15/78
RLSE		5/15/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

GROUND PLANE ASSY

SIZE	FSCM NO	DRAWING NO
D	96214	999872

SCALE 1/1 SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

LM

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999872-0001	B	GROUND PLANE ASSY

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0001	REF	0999806-0001	PLATE, PC GROUND PLANE	EA
0002	00001.100	0999805-0001	INSULATOR,GROUND PLANE 1684-1805-029	EA
0003	00004.000	2210005-0003	BUMPER,RUBBER, ADHESIVE, GRAY 055152-SJ-5003GRAY	EA
0004	00000.042	2211362-0001	SPRAY GLUE SEE TI- DRAWING	EA
0005	00001.480	0972378-0223	ALUM,COIL .063 X 10.0 W ALLOY 5052	LB
0006	00002.010	0808014-0016	NUT, 10-32 STEEL -M45938-1-16C	EA
0007	00002.000	0411231-0148	SPACER,THREADED,S-C-.112-40 TH .250 LG PEM -SOS-6440-8	EA
0008	00001.000	0411231-0117	SPACER,THREADED,.164-32X.250LG SELFCLH	EA
0009	00001.000	0972411-0015	STUD,CAPTIVE 8-32 X 1/2" LONG SOU -77-08-108-13	EA
0010	00001.000	0999926-0001	GROUND STRAP, KEYBD 1684-1926-913	EA
0011	00002.000	0411175-0014	RIVET .188X.093 DIA 1100 ALLOY,UNIV.HEAD QPL - MS20470-A3-3	EA

NOTES: UNLESS OTHERWISE SPECIFIED:

1. INSTALL KEY (ITEM 4) IN POSITIONS P104-5 AND P106-2

2 PIN 1 IDENTIFIER IS VENDOR NAME MOLDED INTO PART

3 MARK PER DRAWING 2265070 LINE FOUR TEXT BLANK

4 REMOVE PIN 2 FROM ONE HEADER AND PIN 5 FROM THE OTHER HEADER (ITEM 17)

5 INSTALL P.C TUBING ITEM 20 BEFORE INSTALLING TERMINAL LUG, ITEM 12. SHIELD WIRE MAY BE EXPOSED UPTO .25 INCH AT THE LUG.

6 CUT SHIELD WIRE .25 TO .50 INCHES AND FOLD BACK OVER CABLE JACKET BEFORE INSTALLING HEAT SHRINK

7 FOR REFERENCE ON WIRE LIST ONLY, AND WILL NOT BE MARKED ON CONNECTORS

8 DO NOT USE KEY (ITEM 4) ON -0002 ASSEMBLY

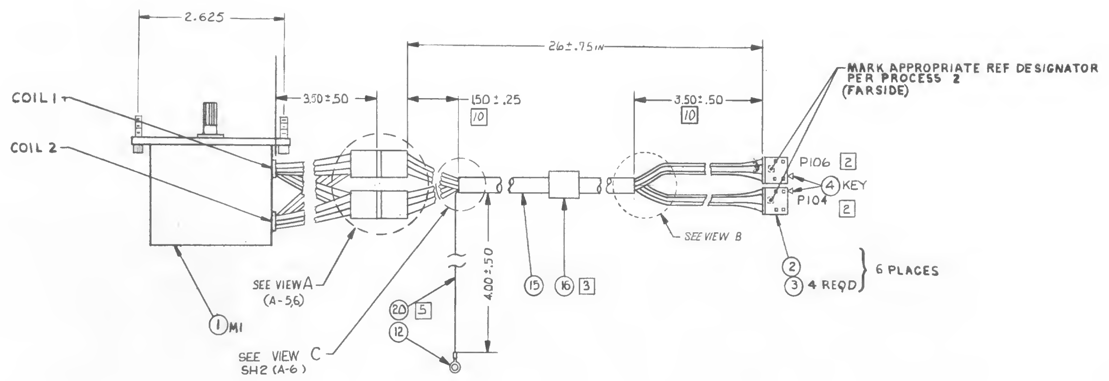
9. ON -0002 ASSEMBLY INSTALL BLANK CONTACTS (ITEM 3) IN SLOTS 3 AND 4 OF P106A AND P106B

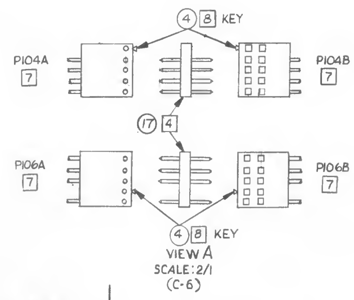
10 *DIMENSIONS ARE FROM THE END OF THE HEAT SHRINK*

DWG NO 999829 SH 1

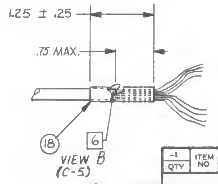
REVISIONS			
REV	DESCRIPTION	DATE	
A	CN452353(D) S.Dodson (1) ITEM 11 WAS 2.1 FT, 417371-5	2-28-80	SD
B	CN 469073(D) R.J. Higginbotham (1) ITEM 8 P/N WAS 0972436-0013	6-13-80	
C	CN458421(D) S.Dodson (1) ITEM 12 WAS 2210066-0007	7-16-80	
D	CN 477805(D) M.Krenek (1) REVISED PER EXTENSIVE ENG CHANGES	3-2-81	
E	CN477879 (D) D.Howard (1) DEL ITEM 14, CHANGED ITEM 18 QNTY FROM .125 TO .250 FT. (2) ADDED VIEW B AND MADE EXT. DIM. CHANGES	9-18-81	
F	CN479102 (C) P Rumor (1) REV PER EXT ENGR CHANGES	12-16-81	M Krenek
G	CN 491976 (D) J KLEPAC (1) REV PER EXTENSIVE ENG CHANGES	7-23-82	W Krenek
H	CN 495687 (D) K Anderson (1) CREATED -5001 LM (2) ON -0001 LM: DELE ITEMS 3, 2, 5, 6, 18 & 20; ADDED ITEM 101	9-2-82	
J	CN506242(D) M Huehn (1) REVISED PER EXTENSIVE ENGRG CHANGES (2) ADDED SHEET 2	12/15/82	
K	CN497229 (D) REX KARL (1) ADDED FLAG NOTE 10	1/31/83	R Dalzener
L	CN506834(D) P RUNYON (1) ON -1 & -2 LM DEL ITEM 4 (2) ON -5001 LM ADDED ITEM 4 (3) ON -5002 LM ADDED ITEM 4 (4) ON -0002 CABLE ASSY WIRE LIST WIRES 2 AND 6 WERE ORANGE & YELLOW ONLY	4-14-83	B.

23





VIEW A
SCALE: 2/1
(C-6)



VIEW B
(C-5)

999829-8001	MOTOR ASSEMBLY, PAPER DRIVE
999829-5002	BULK CABLE ASSY MATERIAL FOR -2
999829-5001	BULK CABLE ASSY MATERIAL FOR -1
999829-0002	MOTOR ASSY, PAPER DRIVE -2, 82X
999829-0001	MOTOR ASSY, PAPER DRIVE
PART NUMBER	DESCRIPTION

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2207421	8740
2206573	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 + .004 - .001	.126 THRU .250 + .005 - .001	.251 THRU .500 + .006 - .001
.501 THRU .750 + .008 - .001	.751 THRU 1.000 + .010 - .001	1.001 THRU 2.000 + .012 - .001

DWN Goulet DATE 7-16-79
CHK Dave Starnes 8-8-79
ENGR Charlie Haynes 8-8-79
Dennis R Fritsche 8/8/79
QA Bradford 8/8/79
8-8-79
8/9/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

MOTOR ASSEMBLY, PAPER DRIVE-82X

D 96214 999829

LM

	00		
	712	COLOR WHITE, TYPE 9	
	712	COLOR BLACK, TYPE 6	
SPEC	NO	ADDITIONAL	
		CLASSIFICATION	

NOTES

REV STATUS OF SHEETS		
REV	L	L
SH	1	2

DWG NO 999829 SH 2

WIRE LIST -0001 ASSEMBLY MOTOR TO CONNECTOR

WIRE NO.	DESCRIPTION	SIGNATURE	START	FINISH	REMARKS	ITEM NO.
1	WHITE COIL 2	PDRV	COIL 2	P106A-1		
2	YELLOW COIL 1	PDRV	COIL 1	P106A-3		
3	YELLOW COIL 2	PDRV	COIL 2	P106A-4		
4	WHITE COIL 1	PDRV	COIL 1	P106A-5		
5	BLACK COIL 2	PPHSA	COIL 2	P104A-1		
6	RED COIL 1	PPHSB	COIL 1	P104A-2		
7	BLACK COIL 1	PPHSD	COIL 1	P104A-3		
8	RED COIL 2	PPHSC	COIL 2	P104A-4		

WIRE LIST -0001 CABLE ASSEMBLY

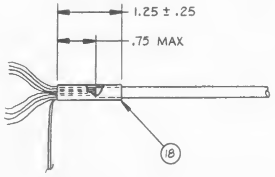
WIRE NO.	DESCRIPTION	SIGNATURE	START	FINISH	REMARKS	ITEM NO.
1	BLACK	PDRV	P106B-1	P106-1		
2	BROWN	PDRV	P106B-3	P106-3		
3	RED	PDRV	P106B-4	P106-4		
4	ORANGE	PDRV	P106B-5	P106-5		
5	YELLOW	PPHSA	P104B-1	P104-1		
6	GREEN	PPHSB	P104B-2	P104-2		
7	BLUE	PPHSD	P104B-3	P104-3		
8	VIOLET/OR WHITE	PPHSC	P104B-4	P104-4		
DRAIN	SAFETY GROUND		TERM 1	SHIELD		

WIRE LIST -0002 ASSEMBLY MOTOR TO CONNECTOR

WIRE NO.	DESCRIPTION	SIGNATURE	START	FINISH	REMARKS	ITEM NO.
1	BLACK COIL 2	PPHSA	COIL 2	P104A-1		
2	RED COIL 1	PPHSB	COIL 1	P104A-2		
3	BLACK COIL 1	PPHSD	COIL 1	P104A-3		
4	RED COIL 2	PPHSC	COIL 2	P104A-4		
5	WHITE COIL 1	PDRV	COIL 1	P106A-1		
6	WHITE COIL 2	PDRV	COIL 2	P106A-5		

WIRE LIST -0002 CABLE ASSEMBLY

WIRE NO.	DESCRIPTION	SIGNATURE	START	FINISH	REMARKS	ITEM NO.
1	BLACK	PPHSA	P104B-1	P104-1		
2	ORANGE OR BLUE	PPHSB	P104B-2	P104-2		
3	BROWN	PPHSD	P104B-3	P104-3		
4	GREEN	PPHSC	P104B-4	P104-4		
5	RED	PDRV	P106B-1	P106-1		
6	YELLOW OR WHITE	PDRV	P106B-5	P106-5		
DRAIN	SAFETY GROUND		TERM 1	SHIELD		



VIEW C
SH 1 (C-6)

TEXAS INSTRUMENTS
INCORPORATED
Digital Systems Group

DWN	DATE	SIZE	FSCM NO	DRAWING NO	REV
M Kuhn	12-7-82	D	06668	999829	L

ISSUE DATE

SCALE 1/1

SHEET 2

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999829-0001    J         MOTOR ASSEMBLY, PAPER DRIVE

ITEM.      QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0001       00001.000  2206574-0001   MOTOR, STEPPING DR, W/PINION (DUAL COIL)  EA

0001A                                M1

0002       00006.000  0972484-0005   CONNECTOR HOUSING 5 CONTACT               EA
                                     TI1    --87175-2
0002A                                P104,P106
                                     TI1    --87175-2
0004       00006.000  0996497-0001   KEYING PLUG CONNECTOR                     EA
                                     086286--1
0017       00002.000  0772696-0012   HEADER,5 PIN  .500LG SGL ROW,STRIP OF 5   EA
                                            -SEE DWG
0101       00001.000  0999829-5001   BULK CABLE ASSY MATERIAL FOR -0001        EA
                                     1221-0829-072
```

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999829-0002    J         MOTOR ASSY,PAPER DRIVE -2,82X

ITEM.      QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0001       00001.000  2206574-0002   MOTOR,STEPPING DR, W/PINION               EA
                                     SEE TI- DWG
0001A                                *DUAL COIL, M1
                                     SEE TI- DWG
0002       00006.000  0972484-0005   CONNECTOR HOUSING 5 CONTACT               EA
                                     TI1    --87175-2
0002A                                P104,P106
                                     TI1    --87175-2
0004       00002.000  0996497-0001   KEYING PLUG CONNECTOR                     EA
                                     086286--1
0017       00002.000  0772696-0012   HEADER,5 PIN  .500LG SGL ROW,STRIP OF 5   EA
                                            -SEE DWG
0101       00001.000  0999829-5002   BULK CABLE ASSY MATERIAL FOR -2           EA
                                     1221-0029-993
```

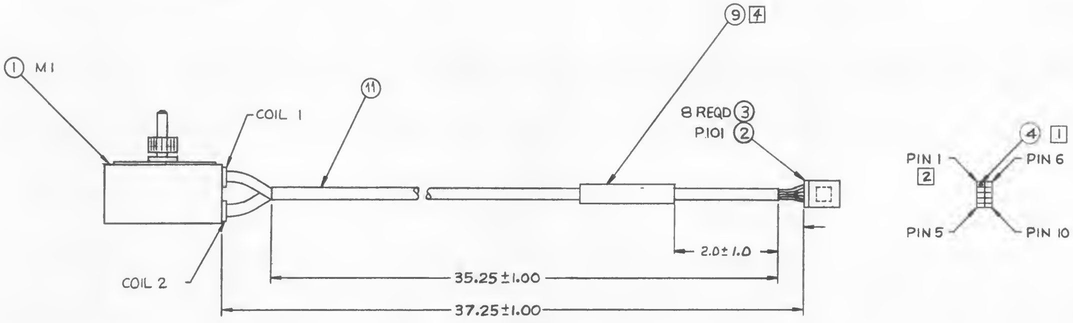
NOTES: UNLESS OTHERWISE SPECIFIED:

1. INSTALL KEY (ITEM 4) IN POSITION SHOWN
2. USE KEY AS PIN 1 IDENTIFIER
3. PIN P 101-6 IS NOT USED
4. *MARK PER ITEM 10, LINE FOUR TEXT "P101".*

WIRE NO	DESCRIPTION	SIGNATURE	START	FINISH	REMARKS	ITEM NO
1	YEL	RDRV	M1-COIL 1	P101-4		1
2	YEL	RDRV	COIL 2	-3		1
3	WHT	RDRV	COIL 1	-2		1
4	WHT	RDRV	COIL 2	-5		1
5	RED	RPHSD	COIL 1	-9		1
6	BLK	RPHSC	COIL 2	-8		1
7	BLK	RPHSB	COIL 1	-7		1
8	RED	RPHSA	M1-COIL 2	P101 10		1

DWG NO 999738 SH

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 425872 S. Arendsen LM UPDATE	10-26-77	
B	CN 439790 A. Patel LM UPDATE	3-29-78	
C	CN 432398 *LM UPDATE*	4/11/78	
D	*CN445454* *Z D4 CHANGE WIRE LIST START COLUMN*	*11-28-78*	
E	*CN439649 L. Sepeda* *1) LM ITEM 8 P/N WAS 972436-13*	*12-8-78*	
F	*CN439831 B. Taylor-Foshee* *ITEM 4 P/N 996497-1 WAS P/N 972599-1*	*4/11/79*	
G	*CN 438073 REKHA SETH* *1) ITEM 8 WAS PN 0972436-0035*	*4-28-79*	*D. Stamm*
H	*CN486843 (D) PRUNYON 1) ON LM ITEM 9 WAS P/N 418201-60 STRAP, ADDED ITEMS 10, 11, 11A, AND 11B 2) ADDED NOTE 4 (3) DELETED PROCESS 1 AND 2 (4) MOTOR REFERENCE DESIGNATOR WAS M2*	*1-4-82*	
J	*CN495684 (D) M. DURHAM (1) ADDED -5001 LM (2) REVISED -0001 LM*	*9-9-82*	
K	*CN506690 (D) D HOWARD (1) DEL IT 8 ON -5001 LM (2) ON -5001 LM, QTY OF IT 11 WAS 0.0 (3) ON -5001 LM, ADDED IT 12 AS ALT FOR IT 11 (4) C-6 IT 11 CALLOUT WAS IT 8 CALLOUT*	*3/25/83*	



0999738-5001	*BULK CABLE ASSY MATERIAL FOR -0001*
0999738-0001	*MOTOR ASSY, RIBBON DRIVE*
PART NUMBER	*DESCRIPTION*

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.006 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
999689	8740

APPLICATION

DWN S. Arendsen DATE 10-25-77
CHK Louis Villa 4/11/78
ENGR Walt Russell 4/12/78
APVD Jim Davis 4/12/78
QA 4/11/78
CONTR 4/14/78
4/14/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

MOTOR ASSY, RIBBON DRIVE

SIZE D FSCM NO 96214 DRAWING NO 999738
SCALE 1/1 SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-7814H

340

EIS

LM

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999738-0001	J	MOTOR ASSY, RIBBON DRIVE

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0001	00001.000	0999810-0001	MOTOR,STEPPING RIBBON DRIVE	EA
0001A			M1	
0002	00001.000	0996566-0005	HOUSING,CONN-10POS SELF-RETAINING CONT 000779-87133-2	EA
0002A			P101 000779-87133-2	
0010	REF	2265070-0001	SPEC, PRE-PRINTED CABLE MARKER	EA
0101	00001.000	0999738-5001	BULK CABLE ASSY MATERIAL FOR -0001 1221-0738-068	EA

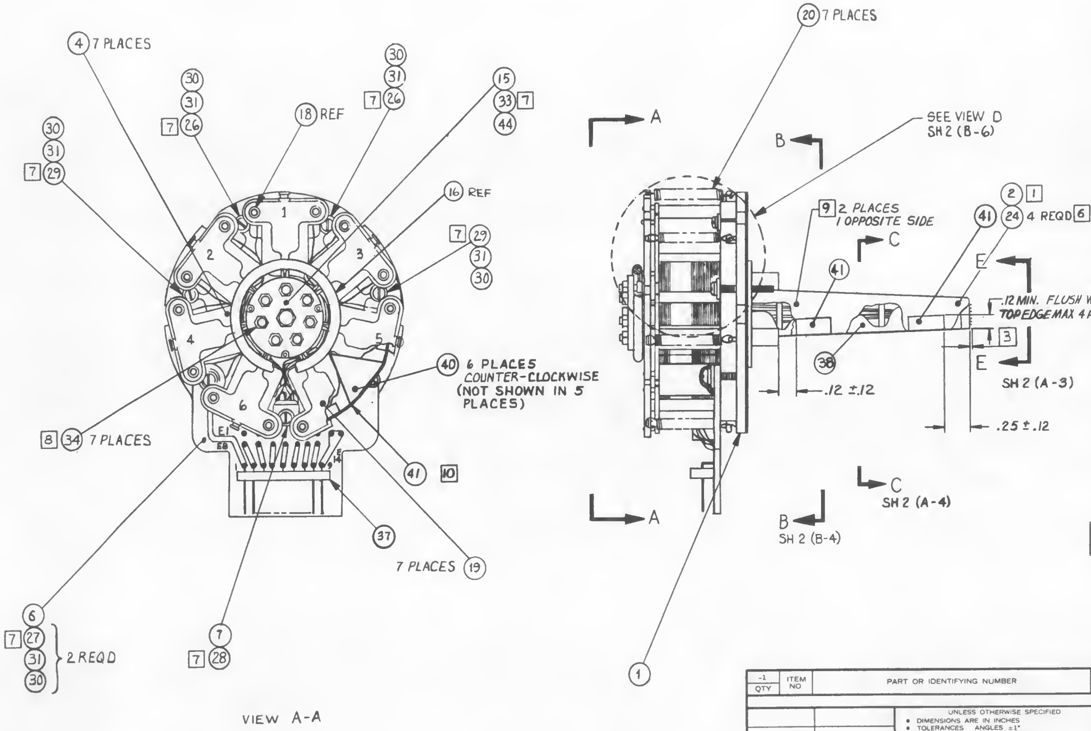
NOTES: UNLESS OTHERWISE SPECIFIED:

1. CLEAN BOTH SURFACES TO BE BONDED WITH CLEAN ALCOHOL. APPLY SMALL AMOUNT OF ITEM 11 IN RECESS OF ITEM 2. PLACE ITEM 10 IN RECESS WITH A LONG SIDE ALIGNED PARALLEL TO ADJACENT SIDE OF RECESS. HOLD FIRMLY IN PLACE FOR 10 SECONDS. THERE MUST NOT BE ANY ADHESIVE IN HOLES OF ITEM 10 OR PROTRUDING ABOVE OUTSIDE SURFACES OF ITEM 10 OR 2.
2. INITIAL ADJUSTMENT IS ONE TURN BACK FROM FULLY SEATED ARMATURE (ITEM 19) POSITION.
3. GRIND NEEDLES SO THAT WITH SOLENOIDS ENERGIZED (.90±.05 AMPS) END OF NEEDLE IS .012±.001 BEYOND END OF ITEM 2.
4. ADJUST GAP ADJUSTMENT SCREW (ITEM 43) SUCH THAT WHEN SOLENOID COIL CURRENT IS REMOVED, END OF NEEDLE IS .0020±.0005 FROM END OF ITEM 2
5. MARK SITE/DATE CODE AND SERIAL NUMBER IN POSITION PER PROCESS 1 AND PER ITEM 36 PARAGRAPH 3.0 ON ITEM 42.
6. TIGHTEN ITEM 24 UNTIL FLANGE OF ITEM 3 IS DEFORMED NOT LESS THAN WHEN THE TOP OF THE WASHER IS FLUSH WITH THE TOP OF THE FLANGE AND NOT MORE THAN 1/2 OF THE FLANGE THICKNESS.

WIRE NO	DESCRIPTION	TOTAL LENGTH	SIGNATURE	START STATION	FINISH STATION	REMARKS	LM ITEM NO
1	COIL ASSEMBLY		SOLENOID 1	E5	E12		4
2	↑		↑ 2	E3	E10		↑
3			3	E7	E14		
4			4	E2	E9		
5			5	E4	E11		
6	↓		↓ 6	E1	E8		↓
7	COIL ASSEMBLY		SOLENOID 7	E6	E13		4

DWG NO 999732 SH 1

REV	DESCRIPTION	DATE	APPROVED
A	CN439791 Felipe Espinoza (1) CORRECTED PWB (ITEM 6) PICTORIAL E NO'S. (2) ADD ITEM 37 TO LM (3) ADD PROCESS 2	4/14/78	
B	CN439742 B. [illegible] 1) DELETE ITEM 22, QTY 1, PN 994331-1 (2) DELETE ITEM 25, QTY 4, PN 416622-20 (3) ADD ITEMS 14A AND 14B, 16, 23 38, 39, 40 AND 41 (4) NOTE 1 WAS CLEAN SURFACES TO BE BONDED APPLY SMALL AMOUNT OF ITEM 11 IN CORNERS OF RECESS OF ITEM 2. PLACE ITEM 10 IN RECESS. THERE MUST NOT BE ANY ADHESIVE IN HOLES OF ITEM 10 OR PROTRUDING ABOVE SURFACE OF ITEM 10 OR 2. (5) ITEM 24 QTY WAS 8 (6) ADD NOTES 9, 10 AND 11 (7) NOTE 5 WAS MARK ----- PARAGRAPH 3.0 (8) ITEM 11 PN WAS 0417690-1 QTY AR	9-11-78	Felipe Espinoza
C	CN440309 M. Hagedorn 9-23-78 (1) LAST TWO LINES OF NOTE 4 WAS, "END OF NEEDLE IS FLUSH ±.001 FROM END OF ITEM 2."	9/25/78	L. Villa
D	CN 439895 D. VYKOUKAL (1) ADD ITEM 42 TO LM & DWG SH2 Z C4 (2) DELE FLAG NOTE 6 Z B-5 (3) SH1 NOTE 5 DELE ··· PARA 3.0 AFTER ITEM 39 HAS BEEN APPLIED TO ITEM 1; ADD ··· PARA 3.0 ON ITEM 42 (4) SH2 NOTE 11 DELE ··· PER PRCS 1 AFTER ITEM 39 HAS BEEN APPLIED TO ITEM 1; ADD ··· PER PRCS 1 ··· (5) SH1 Z C-6 DELE FLAG NOTE 7 FROM ITEM 15; ADD FLAG NOTE 7 TO ITEM 33 (6) ADD NOTE 12 & 13 (7) SH1 Z B-4 ITEM 41 ADD ±.12 TOL TO .25 DIM; DELE .25±.06 REPLACE WITH .12 MIN FLUSH ··· 4 PL (8) SH1 Z B-4 ADD .12±.12; DELE 1.00 DIM FROM OUTSIDE EDGE OF ITEM 41 TO OUTSIDE EDGE OF ITEM 2 (9) SH1 Z B-4 REDRAW ITEM 41 TO SCALE 2 PLCS (10) DELE S/N XXXXXXXXXX FROM ITEM 39 (11) DELE RECTANGLES FROM BEHIND ASSY & REV ITEM 39 SH2 Z C4 (12) DELE NOTE FLAG 11 FROM ASSY & REV ITEM 39 SH2 Z C4 (13) ADD DASHED HALF-CIRCLES TO ITEM 39 3 PLCS	11-10-78	Felipe Espinoza
E	CN445483 M. Hagedorn 11/30/78 1) DELETED (24) FROM SH1 (B-5) 2) NOTE 6 WAS: "TIGHTEN TO 3±.5 IN-LB" 3) ADDED NOTE 6 TO SH1 (C-3)	12-1-78	Felipe Espinoza
F	CN445416 L. Sepeda 1) DELE ITEMS 14, 16A, 16B, 23 2) ADDED ITEM 43 3) LM ITEM 32 P/N WAS 235182-1 4) NOTE 4 CHG (ITEM 14) TO (ITEM 43) 5) NOTE 6 WAS TIGHTEN TO 3.0±.5 IN-LB	1/3/79	Pat E.
G	CN439612 C. Davis LM ITEM 11 QTY AR WAS QTY 1	1/17/79	P.E.
H	CN438066 [illegible] 1.) LM ITEM 0032 WAS SEALING ...., RED 2.) DELE ITEM 32 FROM FD Z C-1, C-6, A8	5-14-79	D. [illegible]
J	CN450926 (C) S. Dalson (1) ADDED: NOTE 14, ITEMS 44 AND 45	7/17/79	[illegible]



REV STATUS OF SHEETS	REV	J	J		
	SH	1	2		

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999689	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  - 3 PLACE DECIMALS ±.010
  - 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN S. Pierce DATE 10-26-77
CHK [illegible] 12/20/77
ENGR [illegible] 1/10/78
APVD Jim Davis 1/11/78
QA R. J. [illegible] 1/12/78
CON FN [illegible] 1/12/78
RESP [illegible] 1/12/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

PRINTHEAD ASSEMBLY, 30 VOLT

SIZE D FSCM NO 96214 DRAWING NO 999732
SCALE 2/1 SHEET 1 OF 2

LM

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
2	SLDR	127-01	00		
1	MARK	100-02	21	HEIGHT .12 COLOR BLACK	5, 11
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

7 TIGHTEN TO 6 ± 1 IN-LB

8 AFTER FINAL GAP ADJUSTMENT, TIGHTEN TO 2 ± .5 IN-LB

9 CLEAN SURFACES AS INDICATED WITH CLEAN ALCOHOL

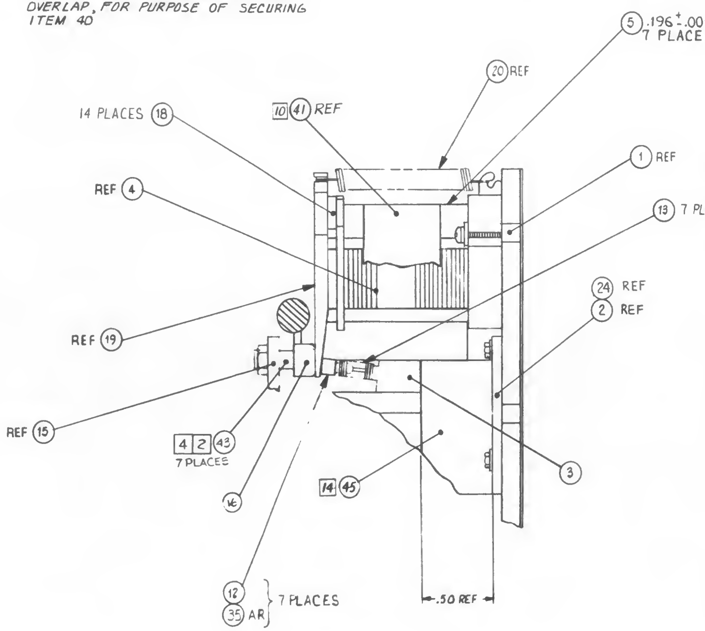
10 TAPE (ITEM 41) TO BE WRAPPED AROUND ENTIRE PRINTHEAD WITH MIN 2.00 IN OVERLAP, FOR PURPOSE OF SECURING ITEM 40

11 MARK "S/N", "P/N" AND APPROPRIATE PART NUMBER, "REV" AND APPROPRIATE REV LETTER IN POSITION PER PROCESS 1 ON ITEM 42.

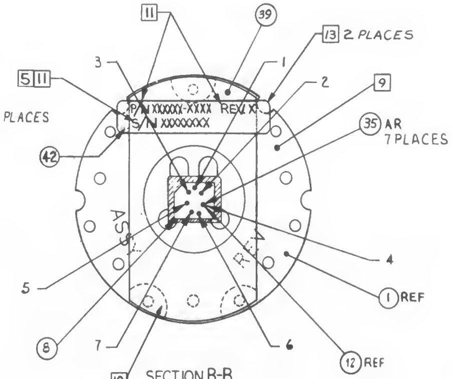
12 PROTUDING SCREWS 3 PLACES MAY CAUSE UP TO .50 DIA OF ITEM 39 NOT TO STICK TO ITEM 1

13 CORNERS OF ITEM 42 WILL FOLD OVER DUE TO NOTCHES IN ITEM 1

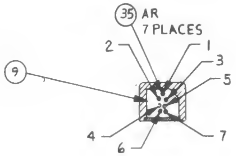
14 WRAP A 3.00±.25 LENGTH OF TAPE, ITEM 45, AROUND THE INDICATED PORTION OF THE REAR GUIDE, ITEM 3



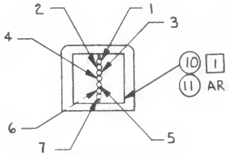
VIEW D
SCALE: NONE
SH 1, (C-3)



SECTION B-B
SH 1, (B-4)



SECTION C-C
SH 1, (B-4)



VIEW E-E
SCALE. NONE
SH 1, (B-3)

SIZE	CODE IDENT NO	DRAWING NO	REV
D	96214	999732	J
SCALE 2/1		SHEET 2	

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION............................
0999732-0001	J	PRINTHEAD ASSEMBLY,30VOLT

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION.............................	UM
0001	00001.000	0994271-0001	PLATE,MOUNTING 1680-0271-030	EA
0002	00001.000	0994295-0001	HOUSING,NEEDLE 1255-0029-017	EA
0003	00001.000	0994280-0001	GUIDE,REAR 1255-0023-000	EA
0004	00007.000	0999814-0001	COIL ASSY,30V,194 TURNS 1221-1814-000	EA
0005	00350.000	0999815-0001	LAMINATION, SOLENOID	EA
0006	00001.000	0999816-0001	PWB,PRINTHEAD, 9 CONDUCTOR	EA
0007	00001.000	0994334-0001	SEPARATOR,WIRE 1255-0034-000	EA
0008	00001.000	0994283-0001	BEARING,REAR 1255-0025-018	EA
0009	00001.000	0994282-0001	BEARING,FRONT 1255-0024-023	EA
0010	00001.000	0994332-0001	BEARING,JEWELLED	EA
0011	AR	0996527-0002	ADHESIVE,LOCTITE 414 SUPER BONDER 005972-414 1 OZ	BT
0012	00007.000	0994274-0001	NEEDLE 1255-0021-000	EA
0013	00007.000	0994278-0001	SPRING,NEEDLE,COMP .072 X .240 LONG	EA
0015	00001.000	0994281-0001	DISC,ADJUSTMENT 1680-0281-032	EA
0016	00001.000	0994494-0001	BUMPER, PRINTHEAD 1255-0041-016	EA
0018	00014.000	0994276-0001	BUSHING 1255-0022-018	EA
0019	00007.000	0994275-0001	ARMATURE	EA
0020	00007.000	0994277-0001	SPRING,ARMATURE	EA
0024	00004.000	0972679-0004	SCREW # 2-28 X 3/8 SLOTTED HEX	EA
0026	00002.000	0972988-0014	SCREW 4-40 X .312 PAN HEAD CRES	EA
0027	00002.000	0972988-0015	SCREW 4-40 X .375 PAN HEAD CRES	EA
0028	00001.000	0972988-0016	SCREW 4-40 X .438 PAN HEAD CRES	EA
0029	00002.000	0972988-0018	SCREW 4-40 X .625 PAN HEAD CRES	EA
0030	00006.000	0416622-0011	WASHER #4 FLAT QPL - AN960C4L	EA
0031	00006.000	0411104-0135	WASHER, LOCK-SPRING, HELICAL, #4 QPL - MS35338-135	EA
0032	AR	0996527-0003	ADHESIVE, CYANOACRYLATE,420 SUPERBONDER 005972-SEE DRAWING	EA
0033	00001.000	0972679-0009	SCREW #4-20 X 3/8"LG THD FORM,HEX	EA
0034	00007.000	0416453-0019	NUT,PLAIN 2-56 UNC-2B HEX CRES,SMALL QPL - NAS671C2	EA
0035	AR	0232573-0001	OIL #43 TERRESTIC HUM -	EA
0036	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION	EA
0037	00001.000	0996865-0005	HEADER ASSY,9 POS RIGHT ANGLE,.100 000779-640099-9	EA
0038	00001.000	0999722-0001	INSULATOR, PRINTHEAD NOSE	EA

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999732-0001    J         PRINTHEAD ASSEMBLY,30VOLT

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION......................... UM

0039      00001.000  0999723-0001   SOUNDFOIL,PRINTHEAD MOUNTING PLATE      EA

0040      00006.000  0999755-0001   INSULATOR, SOUND PRINTHEAD              EA

0041         AR      0411435-0012   TAPE,INSUL 3/8"W PRESS SENSITIVE TRANS  RL
                                    076381-54
0042      00001.000  0232208-3500   LABEL WIRE MARKER DATABS VINYL CLOTH    SH
                                    1286-2208-000
0043      00007.000  0994524-0001   SET SCREW,BUMPER ADJUSTING PRINTHEAD    EA

0044         AR      0417741-0001   COMPOUND, SEALING                       TU
                                    001195-TORQUE SEAL
0045      00000.250  0411435-0416   INSUL TAPE, ELEC, 1/2"W                 FT
                                           -SEE TI DWG
9999      00001.000  0239999-9999   COST, SHRINKAGE                         EA
```

DWG NO 999687 SH 1

NOTES: UNLESS OTHERWISE SPECIFIED:

[1] APPLY 16 ± 1 IN-LBS TORQUE ON ITEM 31 AT ASSY

[2] APPLY 5.5 ± .5 IN-LBS TORQUE ON ITEM 30 AT ASSY

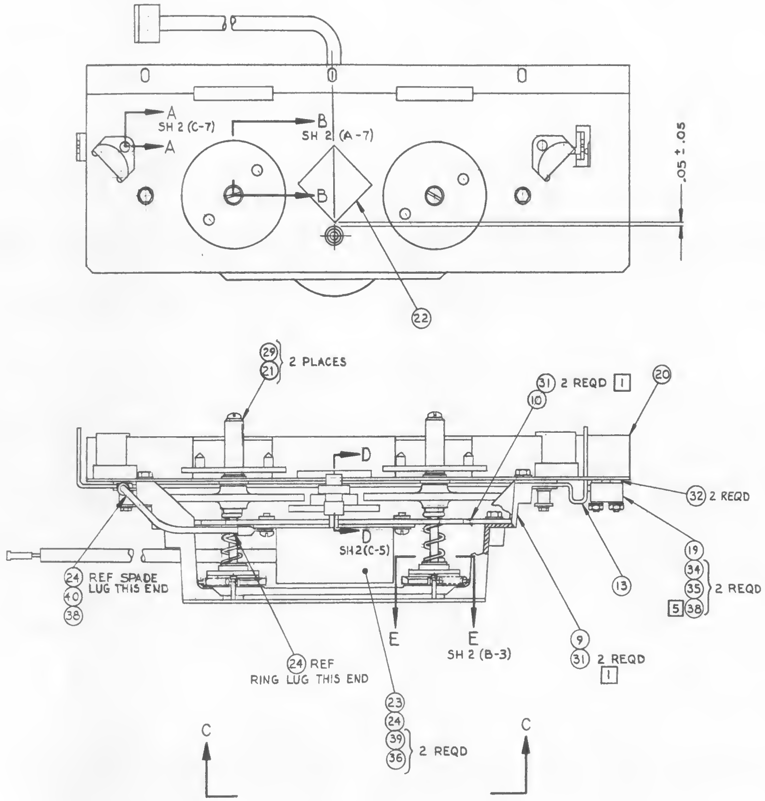
[3] MARK ASSY NO, APPROPRIATE REV LETTER, SITE/DATE CODE AND SERIAL NO PER ITEM 44, PARAGRAPH 3 AND MADE IN USA LOCATED APPROX AS SHOWN ON ITEM 43 USING GOTHIC STYLE LETTERS PER PROCESS 1

[4] ITEM 28 MAY BE INSTALLED FROM EITHER SIDE OF ITEM 20 (SHOP OPTION)

[5] APPLY 32 ± 8 IN OZ OF TORQUE TO NUT (ITEM 38) 2 PLACES

[6] INSTALL WITH PRONGS TOWARD END OF STUD

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	LM UPDATES		
B	428745 10-7-77 E. H. De Leon	10-7-77	
C	428957 11-3-77 E. H. De Leon	11-3-77	
D	CN432667 Felipe Quiroga (1) ROTATED MOTOR (ITEM 23) 180°	4/14/78	T. Villa
E	CN440399 P. Landry (1) DELETE ITEM 7 QTY 2 P/N 994306-1 (2) ITEM 43 WAS 999811-1 (3) NOTE 3 WAS MARK PART NO, APPROPRIATE REV LTR, SITE DATA CODE SERIAL NO PER ITEM 43 & 44 (4) SH 2 Z B-7 DELETE PICTORIAL OF ITEM 7 MOVED ITEM 27 REF. (5) REDREW VIEW C-C SH 2 Z B-3 WAS TAKEN FROM OPPOSITE SIDE. FRONT VIEW	8/18/78	T. Villa
F	CN439163 C. Davis SH 1 ZONE D-8 NOTE 2 WAS APPLY 8±1 IN LBS	3-24-79	D Stone
G	CN452644 (D) S Dodson (1) ADDED NOTE 5	11-29-79	S Dodson
H	CN452356 (D) S Dodson (1) ITEM 32 QTY WAS 1	3-21-80	S Dodson
J	CN477204 (D) J Higginbotham (1) ADDED NOTE 6 (2) SH 2 ZN D-6: ADDED .050 MAX" DIM.	1-26-81	S Dodson



REV STATUS OF SHEETS	REV	J	J		
	SH	1	2		

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
1	MARK	100		HEIGHT .10 COLOR BLK	3
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999689	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

		DATE
DWN	E. H. De Leon	11/2/77
CHK	Louis Villa	12/20/77
ENGR	Francis J Feldman	5 JAN 78
APVD	Jim Davis	1/6/78
QA	R J	1/9/78
CONTR		1/9/78
RLSE		1/19/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

RIBBON DRIVE

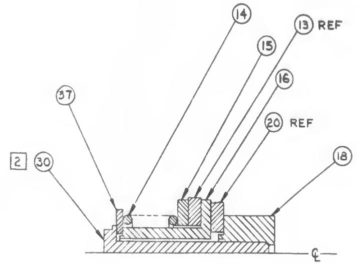
SIZE D FSCM NO 96214 DRAWING NO 999687

SCALE 1/1 SHEET 1 OF 2

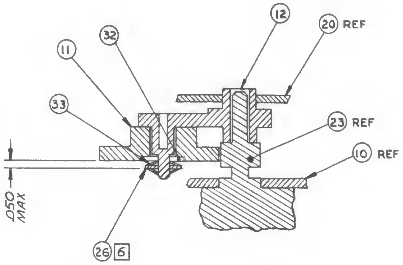
30

LM

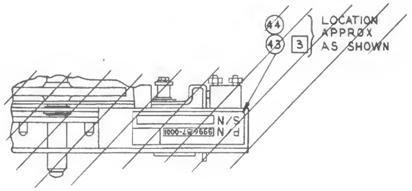
FILMED

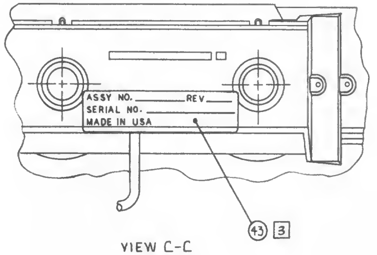


SECTION A-A
2 PLACES
(1 OPP HAND)
SCALE: 4/1
SH 1 (C-7)

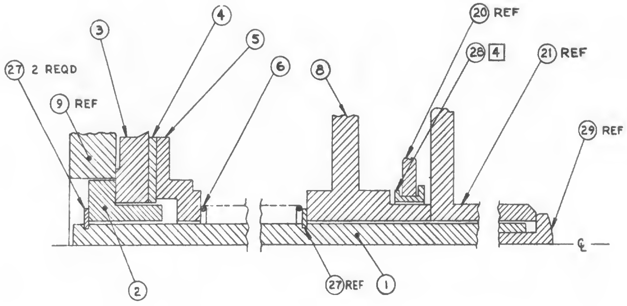


SECTION D-D
SCALE: 2/1
SH 1 (B-6)

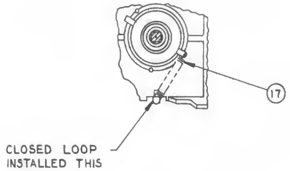




VIEW C-C
SH 1 (A-6)



SECTION B-B
2 PLACES
SCALE: 4/1
SH 1 (C-7)



SECTION E-E
2 PLACES,
(1 OPP HAND)
SH 1 (B-6)

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN E.H. DeLeon DATE 11/3/77 ISSUE DATE	SIZE D	FSCM NO 96214	DRAWING NO 999687	REV J
		SCALE 1/1		SHEET 2	

LIST OF MATERIALS

02/05/83

PART NUMBER   REV   DESCRIPTION............................
0999687-0001   J   RIBBON DRIVE

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00002.000	0994216-0001	SHAFT,DRIVE-RIBBON 1680-0216-000	EA
0002	00002.000	0994217-0001	BEARING,LOWER-RIBBON 1255-0009-000	EA
0003	00002.000	0994218-0001	DISK,FRICTION-RIBBON 1255-0010-000	EA
0004	00002.000	0994219-0001	PAD,FRICTION-RIBBON	EA
0005	00002.000	0994220-0001	HUB,PRESSURE-RIBBON 1255-0011-000	EA
0006	00002.000	0994221-0001	SPRING,COMPRESSION-GEAR DRIVE	EA
0008	00002.000	0994222-0001	GEAR,DRIVE RIBBON 1255-0012-000	EA
0009	00001.000	0999696-0001	CHASSIS, RIBBON DRIVE 1255-1001-000	EA
0010	00001.000	0999699-0001	PLATE, RIBBON MOTOR 1684-1699-000	EA
0011	00001.000	0999700-0001	GEAR,IDLER/REVERSE-MTR 1255-1004-016	EA
0012	00001.000	0999701-0001	ARM, REVERSE-MTR 1255-1005-016	EA
0013	00001.000	0994227-0001	ARM,SHIFT-RIBBON 1680-0227-028	EA
0014	00002.000	0994228-0001	SPRING,COMPRESSION-SHIFT ARM	EA
0015	00002.000	0994230-0001	WASHER,THRUST-SHIFT ARM 1255-0016-000	EA
0016	00002.000	0994285-0001	BEARING,SHIFT ARM 1255-0026-000	EA
0017	00002.000	0994355-0001	SPRING,EXTENSION-RIBBON TAKEUP	EA
0018	00002.000	0994377-0001	GUIDE,RIBBON-SPOOL 1255-0035-000	EA
0019	00001.000	0996754-0001	SWITCH,1 AMP 30VDC MINI SENSITIVE 001963-	EA
0020	00001.000	0999702-0001	PLATE, TOP 1684-1702-000	EA
0021	00002.000	0994290-0001	HUB,DRIVE-RIBBON 1255-0027-000	EA
0022	00001.000	0994496-0001	PAD, STATIC GROUND- FOAM	EA
0023	00001.000	0999738-0001	MOTOR ASSY, RIBBON DRIVE 1221-1738-068	EA
0024	00001.000	0960967-0003	LEAD,ELECTRICAL-GND 1225-3967-061	EA
0026	00001.000	0412991-0003	RING #4 PRONGS RETAINING EXTERNAL	EA
0027	00004.000	0416402-4018	RING,RETAINING EXTERNAL "E" MS1 -6633-4018	EA
0028	00002.000	0230033-0001	BEARING SNAP-IN NYLON THP -6L1-FF	EA
0029	00002.000	0972988-0027	SCREW 6-32 X .312 PAN HEAD CRES	EA
0030	00002.000	0972679-0026	SCREW THREAD SLOTTING HEX .750	EA
0031	00004.000	0972679-0013	SCREW # 6-19 X 1/2 SLOTTED HEX	EA
0032	00003.000	0411027-0806	WASHER,#6 FLAT,CRES,.156 X .375 X .049 QPL - MS15795-806	EA
0033	00001.000	0996277-0001	WASHER,SPRING,#5 ITW - 3502-05-32S	EA

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999687-0001    J         RIBBON DRIVE

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

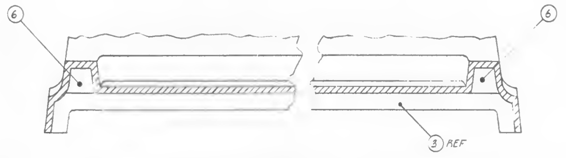
0034      00002.000   0416622-0011   WASHER #4 FLAT                           EA
                                     QPL    - AN960C4L
0035      00002.000   0411104-0135   WASHER, LOCK-SPRING, HELICAL, #4         EA
                                     QPL    - MS35338-135
0036      00002.000   0411101-0058   LOCKWASHER #6  EXTERNAL TOOTH CRES       EA
                                     QPL    - MS35335-58
0037      00002.000   0411027-0807   WASHER,#8 FLAT,CRES,.188 X .375 X .049   EA
                                     QPL    - MS15795-807
0038      00003.000   0416453-0021   NUT,PLAIN,4-40 UNC-2B HEX,CRES,SMALL     EA
                                     QPL    - NAS671-C4
0039      00002.000   0972988-0028   SCREW 6-32 X .375 PAN HEAD CRES          EA

0040      00001.000   0411101-0057   LOCKWASHER # 4  EXTERNAL TOOTH CRES      EA
                                     QPL    - MS35335-57
0043      00001.000   0232208-7000   LABEL 1X3INS RECTL SELF-ADHESIVE         BX
                                     DEN    -43551
0044       REF        0994396-9901   PROCEDURE,SITE & DATE CODE SERIALIZATION EA
```

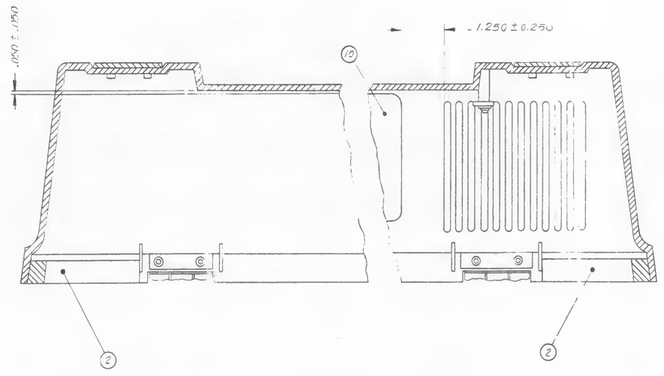
NOTES: UNLESS OTHERWISE SPECIFIED:

1 TIGHTEN [illegible] 2 IN LBS

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN+25091 3/16/73 D STARNES LM UPDATE DELETE ITEM 11	[illegible]	[illegible]
B	CN436365 M Hagedorn 9-2-3 DESC CHG (1) ITEM 2 WAS "FOAM STRIPS-SIDE (2) ITEM 3 WAS "FOAM STRIPS-CENTER"; ADDED REV STATUS OF SHEETS BLOCK	[illegible]	[illegible]
C	CN445472 M Hagedorn 1 ADDED ITEM 15 TO LM (2 SH2 F-8) BALLOON 15 WAS	10/21	[illegible]
D	CN445482 1) ADDED ITEM 16 2) ADDED SECT C-C	[illegible]	[illegible]
E	CN 451642 2-3-79 1) CHANGE ITEM 3, WAS [illegible]	[illegible]	[illegible]
F	[illegible] 1) DELETED ITEM 6 PN 983 [illegible] (2) [illegible] 3, (2) DELETED SECTION C-C ZONE A-6	[illegible]	[illegible]
G	CN [illegible] 1) DELETE ITEM / PN 41 2) ADDED ITEM [illegible] AND IT 3) [illegible] QTY WAS 3 4) SHEET 2 ZB-4 [illegible]	[illegible]	[illegible]
H	[illegible]	[illegible]	[illegible]
J	[illegible]	[illegible]	[illegible]
K	CN [illegible] D) DELETED ITEMS 12 AND 13	[illegible]	[illegible]
L	CN477527 (D) [illegible] 9 2, 3, AND 14 WERE [illegible]	[illegible]	[illegible]
M	CN477567 (D) [illegible]	[illegible]	[illegible]
N	[illegible]	[illegible]	[illegible]



SECTION A-A
SH1 (D-7)
ROTATED 90° CW



SECTION B-B
SH1 (F-7)
ROTATED 90° CW

REV STATUS OF SHEETS	REV	N	L		
	SH	1	2		

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 + .004 − .001	.126 THRU .250 + .006 − .001	.251 THRU .500 + .006 − .001
.501 THRU .750 + .008 − .001	.751 THRU 1.000 + .010 − .001	1.001 THRU 2.000 + .012 − .001

	DATE
DWN	8-2-78
CHK	3/16/78
ENGR	
APVD	8/16/78
QA	
CONTR	
RLSE D. Kalma	3/16/78

NEXT ASSY	USED ON
999690	8740

APPLICATION

TEXAS INSTRUMENTS
INCORPORATED
Dallas Texas

COVER ASSY, 82X

SIZE E FSCM NO 96214 DRAWING NO 999918
SCALE 1/1 SHEET 1 OF 2

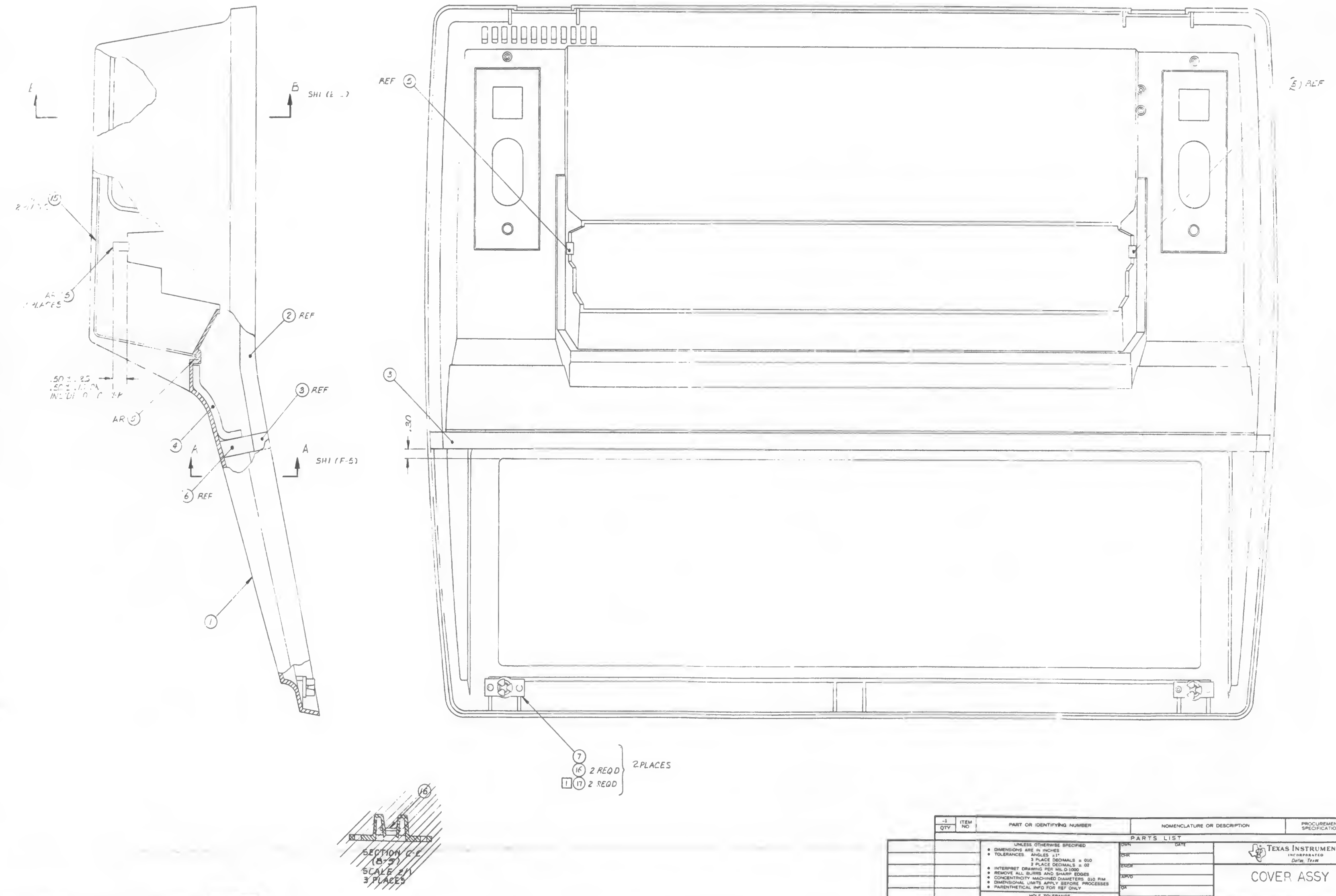
SEQ NO	IDENT	F SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

TI-7017 F
APRL 1

NOTES: UNLESS OTHERWISE SPECIFIED:

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

DWN	DATE
CHK	
ENGR	
APVD	
QA	
CONTR	
RLSE	

NEXT ASSY	USED ON
APPLICATION	

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

COVER ASSY

SIZE	FSCM NO	DRAWING NO	REV
E	96214	999918	L

SCALE 1/1 SHEET 2

SEQ NO	IDENT	F SPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-7617 F
APRIL 1

30

DWG NO 999918

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999918-0001    M         COVER ASSY

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000  0999707-0001   COVER, TERMINAL                             EA
                                    1255-1007-024
0002      00002.000  0999914-0001   INSULATOR,ACOUSTICAL,COVER-SIDE             EA

0003      00001.000  0999914-0002   INSULATOR,ACOUSTICAL,COVER-CENTER           EA

0004      00001.000  0999754-0001   INSULATOR, SOUND COVER - TOP                EA

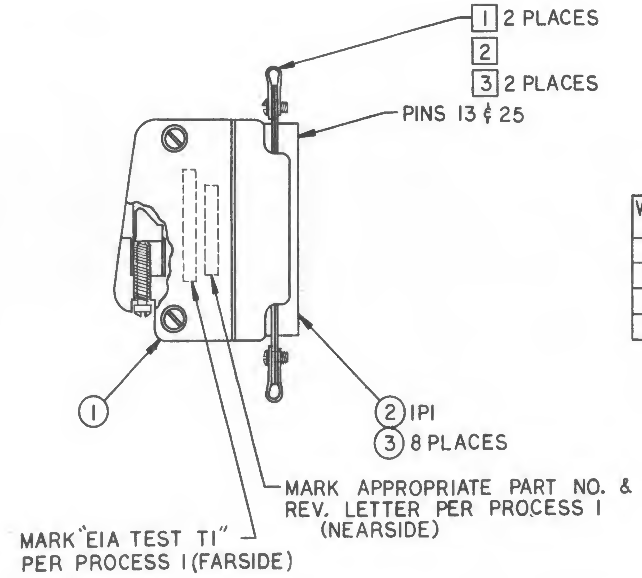
0005         AR      0972361-0006   TAPE,FOAM,VINYL,.06THK .25WIDE SELF ADH     RL
                                    012624-V542
0006      00002.000  0999908-0001   PLUG, COVER                                 EA

0007      00002.000  0999757-0001   CATCH, COVER                                EA
                                    1255-1026-015
0010      00001.000  0999834-0001   LABEL,INSTRUCTION PAPER & RIBBON LOADING    EA
                                    1221-1834-000
0015         AR      0972361-0008   TAPE,FOAM,VINYL,SELF-ADH .25W X .06THK      RL
                                    012624-
0016      00004.000  0416622-0020   WASHER, FLAT .105 ID X.250 OD X.016 THK     EA
                                    QPL    -AN960C3L
0017      00004.000  0972679-0004   SCREW # 2-28 X 3/8 SLOTTED HEX              EA
```

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 451069 JR Young	3-10-79	D. Stam
(1) L/M PN WAS 999925-8001			

NOTES, UNLESS OTHERWISE SPECIFIED:

1. CABLE CLAMP SCREW AND RETAINER CLIPS AND SCREWS INCLUDED WITH ITEM 1
2. RETAINER CLIP INSTALLED WITH THREADED HOLE ON SAME SIDE AS SCREW HEAD
3. SCREWS MUST BE THREADED COMPLETELY THRU RETAINER CLIP



1 2 PLACES
2
3 2 PLACES
PINS 13 & 25
1
2 1P1
3 8 PLACES
MARK APPROPRIATE PART NO. & REV. LETTER PER PROCESS 1 (NEARSIDE)
MARK "EIA TEST TI" PER PROCESS 1 (FARSIDE)

WIRE NO.	DESCRIPTION	TOTAL LENGTH	SIGNATURE	START STA.	FINISH STA.	REMARKS	ITEM NO.
1	22AWG 1 PVC WHITE	3.0	BA/103 TO BB/104	1P1-2	1P1-3	JUMPER	4
2	22AWG 1 PVC WHITE	3.0	CD/108 TO CC/107	1P1-20	1P1-6	JUMPER	4
3	22AWG 1 PVC WHITE	3.0	CA/105 TO CB/106	1P1-4	1P1-5	JUMPER	4
4	22AWG 1 PVC WHITE	3.0	SCA/118 TO CF/109	1P1-11	1P1-8	JUMPER	4

DWG NO 999925

22

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
1	MARK	100-07	712	COLOR WHT, TYPE 9	
	PROCESS			CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-9925H

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999853	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

		DATE
DWN	L.Q. Segovia	7-31-78
CHK	Louis Villa	9/21/78
ENGR	Raj Shaw	9/21/78
APVD	C. Nacke	9/21/78
QA	C. Bradford	9/21/78
CONTR	B. Owen	9/21/78
RLSE	David Stam	9/21/78

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas

TEST PLUG, 820 EIA

SIZE	FSCM NO	DRAWING NO
C	96214	999925

SCALE NONE SHEET

30

LM

FILMED

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION..............................
0999925-0001    A         TEST PLUG, 820 EIA

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000  0539903-0004   HOOD,CONN 37 PIN                              EA
                                    AMP    -205731-1
0002      00001.000  0539409-0005   CONNECTOR,PLUG 25 PINS                        EA
                                    AMP    -205208-1
0002A                               1P1
                                    AMP    -205208-1
0003      00008.000  0539430-0003   CONTACT,PIN     24-20AWG .068 INSUL DIA       EA
                                    AMP    -205202-2     ST
0004      00001.000  2210012-3999   WIRE,WHT,UL 1429, 19X34, 22AWG                FT
                                    090484-XVB1934U9P
```

NOTES: UNLESS OTHERWISE SPECIFIED:

1. ALL DIMENSIONS ARE IN MILLIMETERS
2. GENERAL TOLERANCES:
   ONE PLACE DECIMALS = ± 0.5
   TWO PLACE DECIMALS = ± 0.25
3. HOLES IN BEARING (ITEM 6) MUST BE FREE OF ANY ADHESIVE
4. TIPS OF NEEDLES PROTRUDE (.305 ± 0.025 FOR -0001 AND .356 ± 0.025 FOR -0002) BEYOND FACE OF NEEDLE HOUSING OR JEWEL WHICHEVER PROTRUDES FARTHEST IN ENERGIZED POSITION (.90 ± .05 AMPS)
5. MARK PART NUMBER AND REVISION LETTER, SITE/DATE CODE AND SERIAL NUMBER PER ITEM 20 AND PROCESS 1
6. TIGHTEN SCREW (ITEM 16) TO 1.24 ± 0.11 NM TORQUE
7. ADJUST SCREW (ITEM 22) SO THAT WHEN SOLENOID CURRENT IS REMOVED, ENDS OF NEEDLES ARE 0.051 ± 0.013 BEYOND NEEDLE HOUSING OR JEWEL WHICHEVER PROTRUDES FARTHEST
8. LAMINATION STACK THICKNESS 6.27 ± 0.30
9. SECURE BOARD (ITEM 12) TO MOUNTING PLATE (ITEM 1) BY STAKING THREE POSTS
10. INSTALL STUD (ITEM 17) BY PRESSING INTO MOUNTING PLATE (ITEM 1)

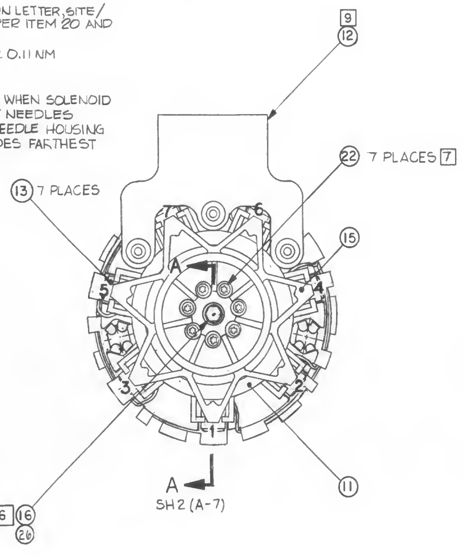
-0001				-0002			
NEEDLE NO	SIGNATURE	START STATION	FINISH STATION	NEEDLE NO	SIGNATURE	START STATION	FINISH STATION
1	SOLENOID 1	E 5	E 12	1	SOLENOID 1	E 11	E 12
2	2	3	10	2	2	9	10
3	3	7	14	3	3	13	14
4	4	2	9	4	4	2	3
5	5	4	11	5	5	4	5
6	6	1	8	6	6	1	8
7	SOLENOID 7	E 6	E 13	7	SOLENOID 7	E 6	E 7

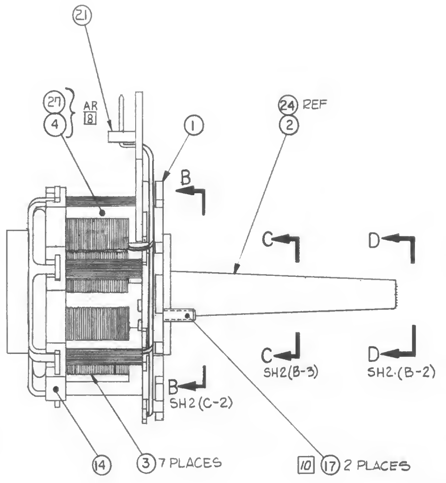
DWG NO 2217374 SH 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	L.HAMPTON LM UPDATE	9/24/81	
B	L.HAMPTON LM UPDATE	9/24/81	
C	CN 492944 (D) J. A. ROY LM UPDATE	9/24/81	
D	CN487353(D) PRUNYON 1) REV PER EXT ENG CHANGES	4-8-82	MKrenek
E	CN 497510 (C) D Andersen (1) NOTE 8 WAS ...THKNS .251 ± .010 (2) IN CC, 6.37 ± 0.40 / .251 ± .016 WAS 6.37 ± 0.25 / .251 ± .010	6-2-82	MKrenek
F	CN 500717 (D) D K Andersen (1) ADDED NOTES 9 & 10 (2) DELE ITEM 25 (3) ITEM 17 P/N WAS 2210071-4	6-2-82	MKrenek
G	CN 477383 (C) J. BAIZA (1) NOTE 8 WAS 6.37 ± 0.40 (2) ADDED BRACKET TO ITEM 27 + 4 (3) ADDED ITEM 21 Z(C-4)	11-6-82	

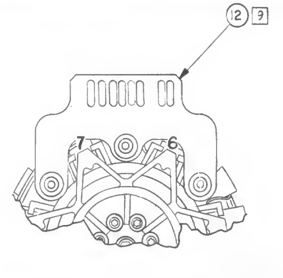
REV CONT (B-1)

22





-0001 SHOWN



-0002 SHOWN

REV CONT

REV	DESCRIPTION	DATE	APPROVED
H	CN503110 (C) PRUNYON (1) ON -0001 AND -0002 LM'S ITEMS 18 & 27 QTY'S WERE "AR"	4-21-83	

2217374-0002	PRINTHEAD ASSY, UNIVERSAL-810
2217374-0001	PRINTHEAD ASSY, UNIVERSAL-82X
PART NUMBER	DESCRIPTION

CONVERSION CHART	
mm	INCHES
3.0	.12
0.25	.010
0.356 ± 0.025	.014 ± .001
0.305 ± 0.025	.012 ± .001
0.5	.02
0.051 ± 0.013	.002 ± .0005
6.27 ± 0.30	.247 ± .011
NM	IN/LB
1.24 ± 0.11	11.0 ± 1.0

METRIC

THIRD ANGLE PROJECTION

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

COMMON	8733
COMMON	8740
NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED
- ~~DIMENSIONS ARE IN INCHES~~ 1
- TOLERANCES ANGLES ±1° ~~2 PLACE DECIMALS ± .010~~ ~~2 PLACE DECIMALS ± .02~~ 2
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- ~~CONCENTRICITY MACHINED DIAMETERS .010 FIM~~
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

~~HOLE TOLERANCE~~

~~.013 THRU .125 + .004 - .001~~	~~.126 THRU .250 + .005 - .001~~	~~.251 THRU .500 + .006 - .001~~
~~.501 THRU .750 + .008 - .001~~	~~.751 THRU 1.000 + .010 - .001~~	~~1.001 THRU 2.000 + .012 - .001~~

DWN	Lucia Armstrong	8 Aug 81
CHK	FOR MIKE WOLF	9/30/81
ENGR		8/12/81
APVD		8/12/81
QA		8-14-81
CONTR		8/14/81
RLSE		10/01/81
	Mike Austin	8-14-81

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

PRINTHEAD ASSEMBLY,
UNIVERSAL -810 & 82X

SIZE D FSCM NO 96214 DRAWING NO 2217374

SCALE 2:1 SHEET 1 OF 2

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
1	MARK	902-01	01	HGT 3.0, CLR BLK (CAT 5)	5
	PROCESS		CLASSIFICATION		

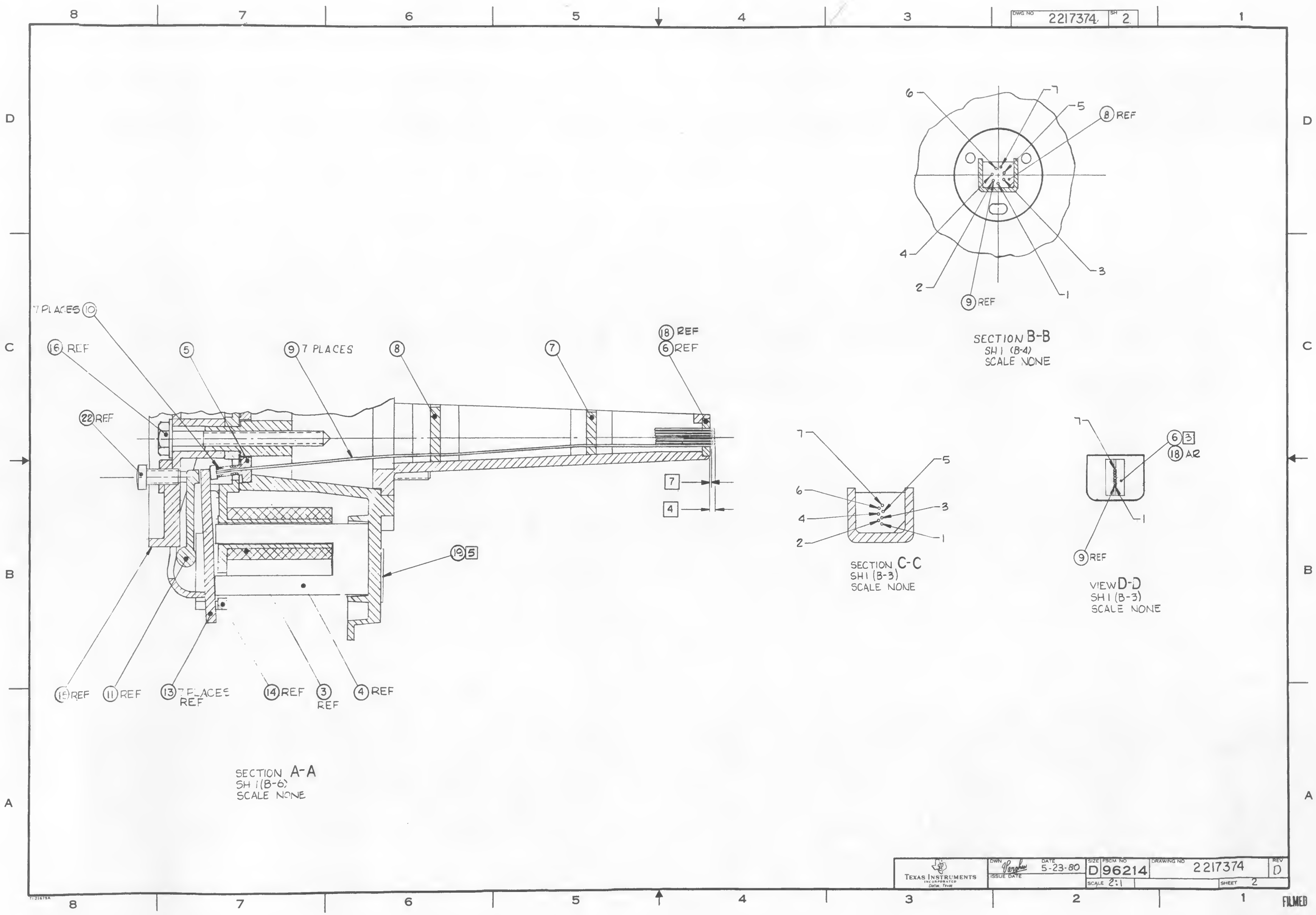
PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

REV STATUS OF SHEETS			
REV	H	D
SH	1	2

300

LM

FILMED


DWG NO 2217374 SH 2
SECTION A-A
SH 1 (B-6)
SCALE NONE
SECTION B-B
SH 1 (B-4)
SCALE NONE
SECTION C-C
SH 1 (B-3)
SCALE NONE
VIEW D-D
SH 1 (B-3)
SCALE NONE
7 PLACES ⑩
⑯ REF
㉒ REF
⑤
⑨ 7 PLACES
⑧
⑦
⑱ REF
⑥ REF
⑲ 5
7
4
⑮ REF
⑪ REF
⑬ 7 PLACES REF
⑭ REF
③ REF
④ REF
⑧ REF
⑨ REF
⑥ 3
⑱ AR
1
2
3
4
5
6
7
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN Vaughn
DATE 5-23-80
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2217374
REV D
SCALE 2:1
SHEET 2
FILMED

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION..............................
2217374-0001	G	PRINTHEAD ASSY, UNIVERSAL-82X

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION............................	UM
0001	00001.000	2217367-0001	PLATE, MOUNTING UNIVERSAL 1255-0066-007	EA
0002	00001.000	2206646-0001	HOUSING NEEDLE 1255-0059-006	EA
0003	00007.000	2207440-0001	COIL, PRINTHEAD 1225-7440-000	EA
0004	00126.000	2213915-0001	LAMINATION, SOLENOID	EA
0005	00001.000	2213932-0001	BEARING GUIDE, REAR 1255-0062-006	EA
0006	00001.000	0994332-0001	BEARING,JEWELLED	EA
0007	00001.000	0994282-0001	BEARING,FRONT 1255-0024-023	EA
0008	00001.000	0994283-0001	BEARING,REAR 1255-0025-018	EA
0009	00007.000	2215580-0001	NEEDLE 1255-1584-014	EA
0010	00007.000	0994278-0001	SPRING,NEEDLE,COMP .072 X .240 LONG	EA
0011	00001.000	2206645-0001	BUMPER-STOP PRINTHEAD 1255-0058-006	EA
0012	00001.000	0999816-0001	PWB,PRINTHEAD, 9 CONDUCTOR	EA
0013	00007.000	2207447-0001	ARMATURE	EA
0014	00001.000	2217366-0001	HOLDER, LAMINATIONS UNIVERSAL 1255-0065-006	EA
0015	00001.000	2217365-0001	HOLDER, BUMPER UNIVERSAL 1255-0064-006	EA
0016	00001.000	2211895-0011	SCREW,TORX HD,BLK ENDURION,TRI-LOBE SEE TI- DRAWING	EA
0017	00002.000	0972355-0003	STUD,CLINCH,.375 LONG,BRONZE 046384-KFH-440-6	EA
0018	AR	0996527-0002	ADHESIVE,LOCTITE 414 SUPER BONDER 005972-414 1 OZ	BT
0019	00001.000	0232208-3500	LABEL WIRE MARKER DATABS VINYL CLOTH 1286-2206-000	SH
0020	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION	EA
0021	00001.000	0996865-0005	HEADER ASSY,9 POS RIGHT ANGLE,.100 000779-640099-9	EA
0022	00007.000	2222074-0001	SCREW, MACHINE, TORX, PAN HEAD SEE TI- DRAWING	EA
0024	REF	2360048-0001	PROC ULTRASONIC WELDING, NEEDLE HOUSING	EA
0026	00001.000	0416622-0011	WASHER #4 FLAT QPL - AN960C4L	EA
0027	AR	0996527-0003	ADHESIVE, CYANOACRYLATE,420 SUPERBONDER 005972-SEE DRAWING	EA

NOTES: UNLESS OTHERWISE SPECIFIED

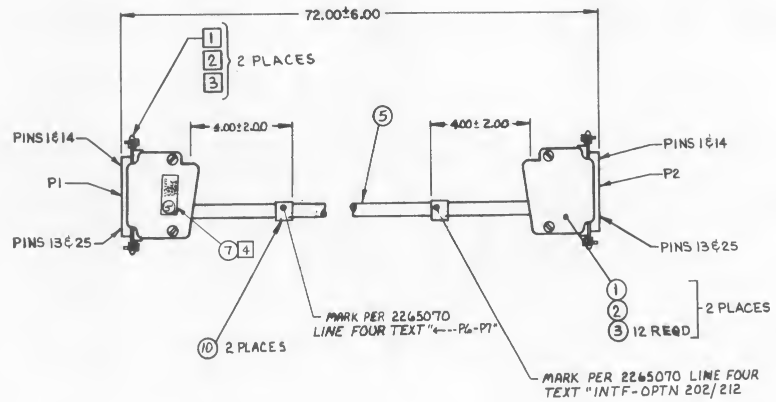
1. CABLE CLAMP SCREWS & RETAINER CLIPS & SCREWS INCLUDED WITH ITEM 2
2. RETAINER CLIP INSTALLED WITH THREADED HOLE ON SAME SIDE AS SCREW HEAD
3. SCREWS MUST BE THREADED COMPLETELY THRU RETAINER CLIPS
4. INSTALL UL ID TAG ON EITHER SIDE OF CONNECTOR HOOD

WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	SIGNATURE	ITEM NO	REMARKS
1	22 AWG-CABLE-BLK	P1-1	P2-1	AA	5	
2	-WHT	-2	-2	BA		
3	-RED	-3	-3	BB		
4	-GRN	-4	-4	CA		
5	-BRN	-5	-5	CB		
6	-BLU	-6	-6	CC		
7	-ORN	-7	-7	AB		
8	-YEL	-8	-8	CF		
9	-VIO	-11	-11	SCA		
10	-GRY	-12	-12	SCF		
11	-PINK	-20	-20	CD		
12	22 AWG-CABLE-TAN	P1-22	P2-22	CE	5	

DWG NO 993205

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	415775(C) R.E. Edwards 11/5/76 REV PER ENGR MARKUP	11/12/76	
	FORMAL RELEASE		
B	CN439012 (D) M. Nandin (1) ITEM 4 QTY -1 WAS 2 (2) ADDED DIM 4.50±.50 2PL (3) ADDED PROJECT NO 8733	11-23-79	
C	CN472248 (D) C. Blanset (1) ADDED NOTE 4, (2) ADDED ITEM 7 TO & C-7, (3) ADDED ITEM 7 TO LM	11-20-80	
D	CN495679 (D) C. Plunkett (1) ON -0001 LM, DELETED ITEMS 3 & 5, ADDED ITEM 101 (2) CREATED -5001 LM	7/28/82	
E	CN491974 (D) PRUNYON (1) ON -0001 LM DELETED ITEMS 6 AND 7 (2) ALSO ON -0001 ADDED ITEM 9 AND 10 (3) DELETED PROCESSES 1 AND 2 (4) DELETED DIM 4.00±.50, 2 PLACES (5) DIM 4.00±2.00 WAS 2.00±.50 (6) MARK PER 2265070 LINE FOUR TEXT "←--P6-P7" WAS MARK "INTF-OPTN 202 2 2 (7) MARK PER 2265070 LINE FOUR TEXT "INTF-OPTN 202 2 2" WAS MARK PIN AND REV LETTER PER PROCESS	9-16-82	
F	CN494755 (D) PRUNYON (1) ON -000 LM DELETED ITEMS 7 AND 8 (2) ON -500 ADDED ITEM 7	11-8-82	



SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
~~2~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR WHITE, TYPE 9~~	
~~1~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR BLACK, TYPE 6~~	
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL D 1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

DWN E.E. Rodriguez DATE 9-2-76
CHK 11/12/76
ENGR Timothy M. Kenin 11/29/76
APVD 11-30-76
12-3-76
CONT 12/3
12/7/76

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSY,
202/212 DATA SET

SIZE D FSCM NO 96214 DRAWING NO 993205
SCALE NONE SHEET

LM 1

4 340

6-258

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV       DESCRIPTION.............................
0993205-0001    F        CABLE ASSY,202/212 DATA SET

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................. UM
0001      00002.000  0539409-0005   CONNECTOR,PLUG 25 PINS                   EA

                                    AMP    -205208-1
0002      00002.000  0539903-0001   HOOD,CONN 25 PIN WITH RETAINERS          EA
                                    AMP    - 206478-3
0009      00REF 000  2265070-0001   SPEC, PRE-PRINTED CABLE MARKER           EA

0101      00001.000  0993205-5001   BULK CABLE ASSY MATERIAL FOR -0001       EA
                                    1221-0205-053
```

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02/05/83

PART NUMBER    REV       DESCRIPTION.............................
0993205-5001    F        BULK CABLE ASSY MATERIAL FOR -0001

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................. UM

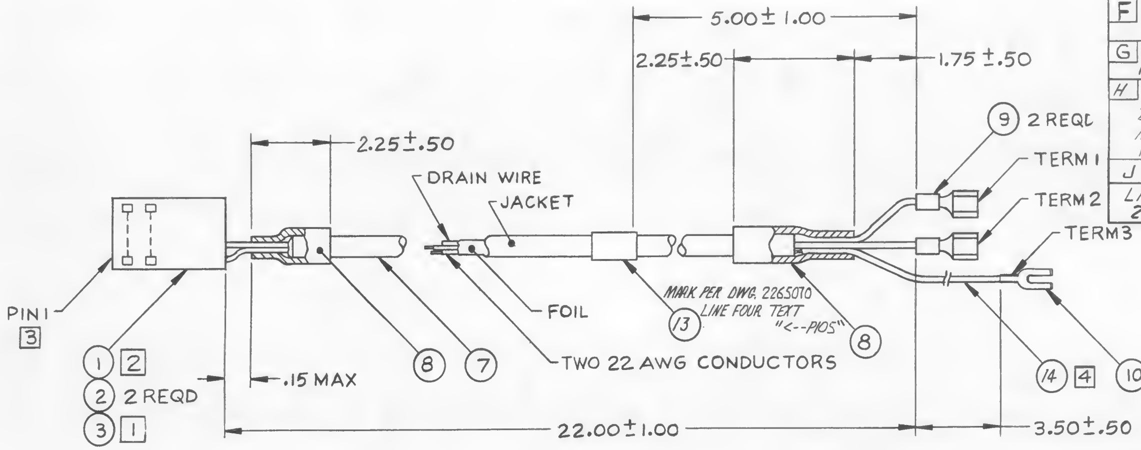
0003      00024.000  0539430-0003   CONTACT,PIN    24-20AWG .068 INSUL DIA   EA
                                    AMP   -205202-2    ST
0005      00006.500  0972444-0005   CABLE,12COND 22AWG UL LISTED             FT
                                    019007-6914UL
0007      00001.000  0962571-0005   PLATE, ID, EDP CABLE                     EA

0010      00002.000  2210317-0001   LABEL,BLANK,CABLE MARKER                 EA
                                    085480-SLPF-19319-4
```

NOTES, UNLESS OTHERWISE SPECIFIED:

1. INSTALL KEY (ITEM 3) IN POSITION P105-3
2. POSITION P105-4 IS NOT USED
3. PIN 1 IDENTIFIER IS VENDOR NAME MOLDED INTO PART
4. INSTALL TUBING (ITEM 12) TO DRAIN WIRE BEFORE INSTALLING TERM LUG (ITEM 10). *MAXIMUM ALLOWABLE EXPOSURE OF DRAIN WIRE IS .25 INCHES.*

WIRE NO	TOT LG	DESCRIPTION	SIGNATURE	START STA	FINISH STA	REMARKS	LM ITEM NO
1	AR	CLEAR	CMTRA	P105-1	TERM1	SPLY	7
2	AR	BLACK	CMTRB	P105-2	TERM2	RETRN	7
3	AR	DRAIN	GND	—	TERM3	GND	7



REV	DESCRIPTION	DATE	APPROVED
A	CN 439797 R Wilson 4/13/78 LM UPDATES	4/13/78	
B	CN440310 J.CLARK 1.) LM: IT.7 P/N WAS 230252-3 "DESCRIPTION CABLE 20 2COND POLY BEDFOIL" 2.) F/D: "TWO 22 AWG" (ZB-3) WAS "TWO 20 AWG"	8-17-78	
C	CN 439655 1) ZNC-3 DIM 5.00±1.00 WAS 8.00±2.00	11/28/78	
D	CN439830 ITEM 3 PN 996497-1 WAS PN 972599-1	4/11/79	
E	CN 452331 (D) D Anderson (1) P/N ITEM 10 WAS 539882-0002	5/2/80	S Dodson
F	CN452381 (D) S Dodson (1) IT. 8 WAS 972146-6	6-25-80	S Dodson
G	CN457278 (D) J Dodson (1) IT. 10 WAS 2211389-1	8-7-80	S Dodson
H	CN 477806 (D) D. Howard (1) SH. 1, Z C-3, IT. 13 WAS 11, WAS ALSO CHANGED FROM A MARKER STRAP. (2) IT. 14 WAS 12. (3) PROCESS 1 AND 2 WERE DELETED.	0-16-81	
J	CN 497566 (D) Starnes LM ITEM 10 P/N WAS 2210066-0007 2) ADDED TO NOTE 4 MAXIMUM ALLOWABLE.....	7-22-82	
K	CN495683 (D) M. DURHAM (1) CREATED -5001 LM (2) ON -0001 LM DELETED ITEMS 2, 3, 7, 8, 9, 10, 13 & 14, ADDED ITEM 101	11-1-82	S Dodson
L	CN 503515 (D) R. KARL (1) ON -5001 LM ITEM 10 PN WAS 2210066-0007	2-1-83	R. Karl
M	CN 507017 (D) R. KARL (1) QTY ITEM 8 WAS 0.25 (2) Z C-3 DIM 2.25 +/- .50 WAS 1.25±.50 (3) ADDED "82X" TO TITLE	2-7-83	R. Karl

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999689	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  - 3 PLACE DECIMALS ±.010
  - 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

DWN	DATE 4/6/78
CHK	4/13/78
ENGR	Walt Russell 4/14/78
APVD	Jim Davis 4/14/78
QA	
CONTR	4/14/78
RLSE	4/14/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY,
CARRIAGE DRIVE 82X

SIZE	FSCM NO	DRAWING NO
C	96214	999736

SCALE NONE

SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-9925H

DWG NO 999736

340

23

1 LM

FILMED

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999736-0001    M         CABLE ASSY, CARRIAGE DRIVE

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.......................... UM

0001      00001.000   0972484-0004    CONNECTOR HOUSING 4 CONTACT              EA
                                      TI1    --87175-0
0001A                                 P105
                                      TI1    --87175-0
0101      00001.000   0999736-5001    BULK CABLE ASSY MATERIAL FOR -0001       EA
                                      1221-0736-052
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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999736-5001    M         BULK CABLE ASSY MATERIAL FOR -0001

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.......................... UM

0002      00002.000   0972104-0001    CONTACT ELEC-LOCKING,WIRE-TO.025 SQ POST  EA
                                      AMP    - 87124-1
0003      00001.000   0996497-0001    KEYING PLUG CONNECTOR                     EA
                                      086286--1
0007      00002.000   0230252-0020    CABLE,2COND,22AWG,COMMUNICATIONS,BLK/CLR  FT
                                      SEE TI- DRAWING
0008      00000.400   0972146-0005    TUBING, 3/16 D BLK  HEAT SHRINK PVC       FT
                                      1242-1098-000
0009      00002.000   0996334-0002    TERMINAL .187 X .020 MALE                 EA
                                      AMP    - 2-350799-2
0010      00001.000   2211377-0001    TERMINAL,SPADE                            EA
                                      1221-2835-000
0013      00001.000   2210317-0001    LABEL,BLANK,CABLE MARKER                  EA
                                      085480-SLPF-19319-4
0014      00000.500   0972436-0009    INSUL SLEEVING,#14 .016THK .066ID         FT
                                      003390-HT-105C-14
```

DWG NO 993210 SH

NOTES: UNLESS OTHERWISE SPECIFIED:

[1] TWO WIRES CRIMPED TOGETHER AT THIS STATION.

[2] CABLE CLAMP SCREWS & RETAINER CLIPS & SCREWS INCLUDED WITH ITEM 3

[3] RETAINER CLIP INSTALLED WITH THREADED HOLE ON SAME SIDE AS SCREW HEAD

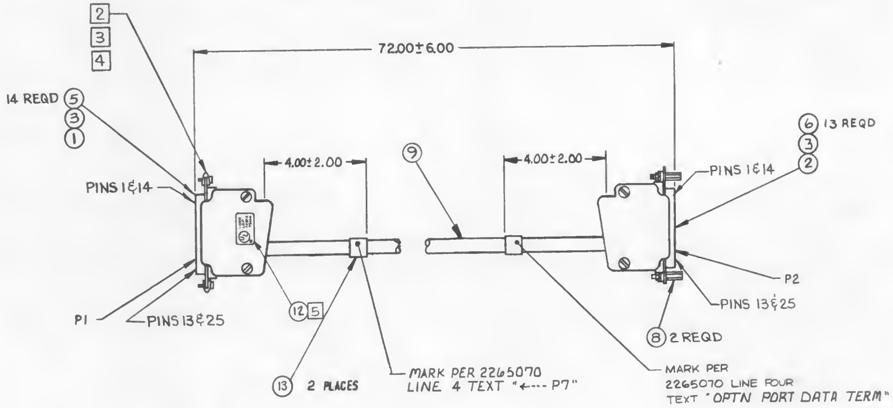
[4] SCREWS MUST BE THREADED COMPLETELY THRU RETAINER CLIPS

[5] INSTALL UL ID TAG ON EITHER SIDE OF CONNECTOR HOOD

WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	SIGNATURE	ITEM NO	REMARKS
1	22 AWG BLK	P1 -1	P2 -1	AA ↔ AA	9	
2	↕ WHT	↕ -2	↕ -3	BA → BB	↕	
3	RED	-3	-2	BB ← BA		
4	GRN	-4 [1]	-8	CA → CF		
5	BRN	-6	-20	CC ← CD		
6	BLU	-7	-7	AB ↔ AB		
7	ORG	-8	-4 [1]	CF ← CA		
8	YEL	-11	-12	SCA → SCF		
9	VIO	-12	-11	SCF ↔ SCA		
10	GRY	-15 [1]	-17	DB ↔ DD		
11	PNK	-17 [1]	-15	DD ↔ DB		
12	22 AWG TAN	-20	P2 - 6	CD → CC	9	
13	26 AWG IPVC WHT	-4	P1 - 5	CA → CB	10	2ND WIRE ON P1-4
14	↕ ↕	P1 -15	P1 - 24 [1]	DB ← AUXL10	↕	2ND WIRE ON P1-15
15		P2 -4	P2 - 5	CA → CB		2ND WIRE ON P2-4
16	26 AWG IPVC WHT	P1 -17	P1 - 24	DD ← AUXL10	10	2ND WIRE ON P1-17

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	415775(C) Pat Edwards 11/10/76 REV PER ENGR MARKUP	11/12/76	
	FORMAL RELEASE		
B	CN418888 D.W. Smith 1) ITEM 10 WAS PN538347-3999	8-5-77	
C	CN439014(D) (1) ITEM 7 QTY WAS 2 (2) ADDED DIM 4.00±.50, 2PL	1-8-80	
D	CN462886(C) C. Klunkert (1) CN -0001 LM P/N FOR ITEM 3 WAS 539903-0001	8-14-80	
E	CN472249(D) C. Klunkert (1) ADDED NOTE 5, (2) ADDED ITEM 12 TO Z C-7, (3) ADDED ITEM 12 TO LM	11-20-80	
F	CN465628(D) C. Klunkert (1) ON-0001 LM ITEM 2 QTY WAS 2, (2) REVISED APPLICATION BLOCK	2-9-81	
G	CN477821(D) C. Klunkert (1) ON-0001 LM, DELETED ITEM 7, ADDED ITEM 13 (2) ZS B5 & 7 FIND NO 13 WAS 7 (3) ZS B8 & 4 DELETED "MARK PER PROCESS 2" (4) ZS B-6 & 7 ADHESIVE LABELS WERE BANDMARKERS (5) Z B5 MARKING INSTR. WAS "MARK P/N & REV LETTER PER PROCESS 1" (6) Z B6 DELETED "PER PROCESS 1" FROM "OPTN PORT DATA TERM" (7) DELETED PROCESS 2	3-11-82	
H	CN495681(D) C. Klunkert (1) ON -0001 LM, DELETED ITEMS 5, 6, 9, 10 & 13, ADDED ITEM 101 (2) CREATED -5001 LM W/ P/NS DELETED FROM -0001	7/28/82	
J	CN491970 (D) PRUNYON (1) ON-000 LM, DELETED ITEMS 4 AND 11, ITEM 3 QTY WAS 1.00 (2) ON -5001 ITEM 3 QTY WAS 4.00 (3) DELETED PROCESS (4) DELETED DIM 4.00±.50 2 PLACES (5) DIM 4.00±2.00 WAS 2.00±.50 (6) MARK PER 2265070 LINE 4 TEXT ←--- P7 WAS MARK OPTN PORT DATA TERM (6) MARK PER 2265070 LINE FOUR TEXT OPTN PORT DATA TERM WAS MARK PER DRAWING 2265070 LINE FOUR TEXT ←--- P7 (7) ON -5001 LM ADDED ITEM 14	9-6-82	
K	CN494753 (D) PRUNYON (1) ON -0001 LM DELETED ITEM 12 (2) ON-5001 ADDED ITEM 12	11-8-82	



-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  - 3 PLACE DECIMALS ± 010
  - 2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU 125 +004 -001	126 THRU 250 +005 -001	251 THRU 500 +006 -001
501 THRU 750 +008 -001	751 THRU 1 000 +010 -001	1 001 THRU 2 000 +012 -001

DWN LENOVER DATE 9-1-76
CHK 11-2-76
ENGR Timothy M. Keir 11/23/76
APVD 11-30-76
12-3-76
CONTR 12/3
REL 12/4/76

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY, DATA TERMINAL

SIZE D FSCM NO 96214 DRAWING NO 993210
SCALE NONE SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
~~2~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR WHITE, TYPE 9~~	
~~1~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR BLACK, TYPE 6~~	
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

LM

340

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0993210-0001    K         CABLE ASSY,DATA TERMINAL

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................. UM

0001      00001.000   0539409-0005   CONNECTOR,PLUG 25 PINS                      EA
                                     AMP    -205208-1
0002      00001.000   0539409-0006   CONNECTOR,RCPT 25 PINS                      EA
                                     AMP    -205207-1
0003      00002.000   2210305-0003   HOOD STRN RLF 45/180DEG,BULK PK 25 POS      EA
                                     SEE TI- DRAWING
0008      00002.000   0406769-0001   SCREW,SPECIAL,CONNECTOR LOCKING             EA
                                     CIE    - 020418-2
0101      00001.000   0993210-5001   BULK CABLE ASSY MATERIAL FOR -0001          EA
                                     1221-0210-042
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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0993210-5001    K         BULK CABLE ASSY MATERIAL FOR -0001

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................. UM

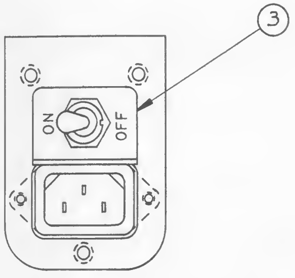
0005      00014.000   0539430-0003   CONTACT,PIN     24-20AWG .068 INSUL DIA     EA
                                     AMP    -205202-2     ST
0006      00013.000   0539430-0004   CONTACT,SOCKET 24-20AWG .068 INSUL DIA      EA
                                     AMP    -205201-3     ST
0009      00006.500   0972444-0005   CABLE,12COND 22AWG UL LISTED                FT
                                     019007-6914UL
0010         AR 000   2210012-1999   WIRE,ELECT,WHT,26 AWG,19 X 38,U/L 1429      FT
                                     090484-SEE TI DWG
0012      00001.000   0962571-0005   PLATE, ID, EDP CABLE                        EA

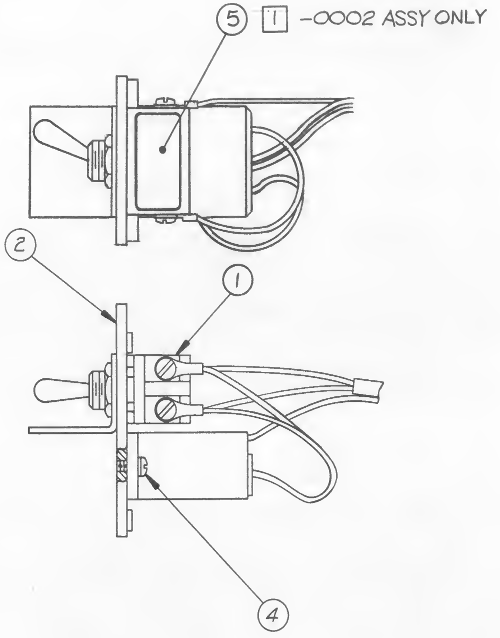
0013      00002.000   2210317-0001   LABEL,BLANK,CABLE MARKER                    EA
                                     085480-SLPF-19319-4
0014       REF        2265070-0001   SPEC, PRE-PRINTED CABLE MARKER              EA
```

NOTES, UNLESS OTHERWISE SPECIFIED:

1. MARK PART NUMBER AND REVISION PER PROCESS 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN468977(D) DHOWARD	8-4-82	Stamm
	(1) ADDED TOP VIEW SHOWING IT 5 (2) ADDED IT 5 TO -2 LM (3) ADDED NOTE 1 (4) A-4, ADDED PROCESS 1 TO DWG		





CONVERSION CHART	
mm	INCHES
0.25	.010
0.5	.02

P/N	DESCRIPTION	REMARKS
2361131-0002	PWR CABLE ASSY (BPO)	BRITISH POST OFFICE
2361131-0001	POWER CABLE ASSY	DOMESTIC

DWG NO 2361131 SH

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2206540	8740
2207405	8740
999690	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN MILLIMETERS
- TOLERANCES: 2 PLACE DECIMALS ± 0.25, 1 PLACE DECIMALS ± 0.5, ANGLES ± 1°
- INTERPRET DRAWING PER DOD-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 0.25 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE	
0.33 THRU 3.18	+0.10/-0.03
3.20 THRU 6.35	+0.13/-0.03
6.38 THRU 12.70	+0.15/-0.03
12.73 THRU 19.05	+0.20/-0.03
19.08 THRU 25.40	+0.25/-0.03
25.43 THRU 50.80	+0.30/-0.03

THIRD ANGLE PROJECTION

DWN R.J. Higginbotham 7-23-81
1-5-82
ENGR C. Meadow 7-30-81
APVD-ENGR 7/31/81
QA Robert DeLaGarza 7/31/81
APVD-MFG Folsom 7/31/81
RLSE Dalgren 1/5/82

TEXAS INSTRUMENTS
INCORPORATED
Digital Systems Group

SI-METRIC

POWER CABLE ASSY

SIZE	FSCM NO	DRAWING NO
C	06668	2361131

SCALE 1:1 SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
1	MARK	909-01	01		1
PROCESS			CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

300

LM

1

FILMED

E
I
S

LIST OF MATERIALS

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03/16/83

PART NUMBER    REV        DESCRIPTION.............................
2361131-0001     A        POWER CABLE ASSY - DOMESTIC

ITEM.      QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001       00001.000  0999835-0001   CABLE ASSY, POWER DISTRIBUTION            EA
                                     1221-1835-025
0002       00001.000  2361130-0001   ADAPTER PLATE,PWR SW & FILTER             EA
                                     1684-1130-008
0003       00001.000  0999924-0001   SWITCH GUARD                              EA
                                     1684-1924-015
0004       00002.000  2210084-0002   SEMS SCREW, 4-40X1/4 EXT. TOOTH           EA
                                     1221-2134-000


03/16/83

PART NUMBER    REV        DESCRIPTION.............................
2361131-0002     A        POWER CABLE ASSY - BPC

ITEM.      QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001       00001.000  0999835-0002   CABLE ASSY,POWER DISTRIBUTION (BPC)       EA
                                     1221-0035-000
0002       00001.000  2361130-0001   ADAPTER PLATE,PWR SW & FILTER             EA
                                     1684-1120-008
0003       00001.000  0999924-0001   SWITCH GUARD                              EA
                                     1684-1924-015
0004       00002.000  2210084-0002   SEMS SCREW, 4-40X1/4 EXT. TOOTH           EA
                                     1221-2134-000
0005       00001.000  0232208-3500   LABEL WIRE MARKER DATABS VINYL CLOTH      SH
                                     1286-2208-000
```

NOTES: UNLESS OTHERWISE SPECIFIED:

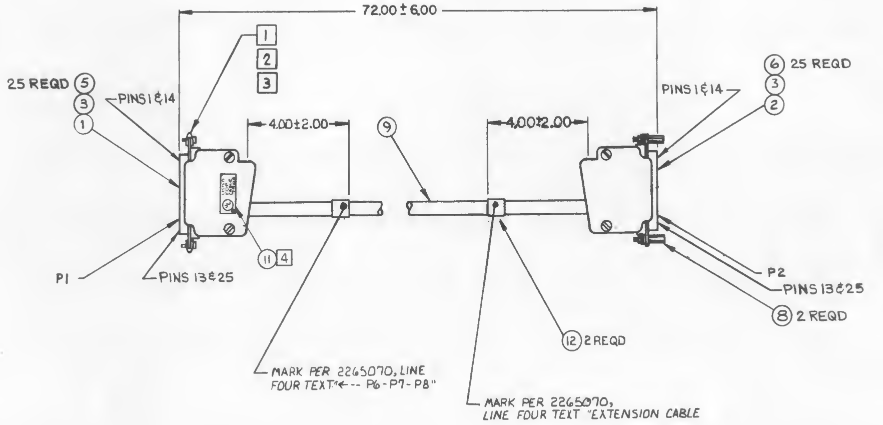
1. CABLE CLAMP SCREWS & RETAINER CLIPS & SCREWS INCLUDED WITH ITEM 3
2. RETAINER CLIP INSTALLED WITH THREADED HOLE ON SAME SIDE AS SCREW HEAD
3. SCREWS MUST BE THREADED COMPLETELY THRU RETAINER CLIPS
4. INSTALL UL ID TAG ON EITHER SIDE OF CONNECTOR HOOD

WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	SIGNATURE	ITEM NO	REMARKS
1	22 AWG-BLK	P1-1	P2-1	CRKT-1	9	
2	-WHT	-2	-2	-2		
3	-RED	-3	-3	-3		
4	-GRN	-4	-4	-4		
5	-ORN	-5	-5	-5		
6	-BLU	-6	-6	-6		
7	-WHT/BLK	-7	-7	-7		
8	-RED/BLK	-8	-8	-8		
9	-GRN/BLK	-9	-9	-9		
10	-ORN/BLK	-10	-10	-10		
11	-BLU/BLK	-11	-11	-11		
12	-BLK/WHT	-12	-12	-12		
13	-RED/WHT	-13	-13	-13		
14	-GRN/WHT	-14	-14	-14		
15	-BLU/WHT	-15	-15	-15		
16	-BLK/RED	-16	-16	-16		
17	-WHT/RED	-17	-17	-17		
18	-ORN/RED	-18	-18	-18		
19	-BLU/RED	-19	-19	-19		
20	-RED/GRN	-20	-20	-20		
21	-ORN/GRN	-21	-21	-21		
22	-BLK/WHT/RED	-22	-22	-22		
23	-WHT/BLK/RED	-23	-23	-23		
24	-RED/BLK/WHT	-24	-24	-24		
25	22 AWG-GRN/BLK/WHT	P1-25	P2-25	CRKT-25	9	

DWG NO 993211 SH

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	415775(C) Rob Edwards 11/10/76 REV PER ENGR MARKUP	11/12/76	
	FORMAL RELEASE		
B	CN439013(C) (1) ITEM 7 QTY WAS 2 (2) ADDED DIM 4.00 (3) ADDED PROJECT 8733	3-30-79	
C	CN462886 (C) C Bluakert (1) ON -0001 LM P/N FOR ITEM 3 WAS 539903-0001	8-14-80	
D	CN472250(D) C. Bluakert (1) ADDED NOTE 4, (2) ADDED ITEM 11 TO Z C-7, (3) ADDED ITEM 11 TO LM	11-20-80	
E	CN491975 (E) PRUNYON (1) ON LM DELETED ITEM'S 4,7 AND 10 (2) ITEM 3 QTY WAS 1.000 (3) ADDED ITEM'S 12 AND 13 (4) DELETED PROCESSES 1 AND 2 (5) DELETED DIM 4.0±.50 (6) DIM 4.00±2.00 WAS 2.00±.50 (7) ITEM 12, 2REQD WAS ITEM 7, 4 REQD (8) MARK PER 2265070, LINE FOUR TEXT "←-- P6-P7-P8" WAS MARK EXTENSION CABLE PER PROCESS 1 (9) MARK PER 2265070, LINE FOUR TEXT "EXTENSION CABLE" WAS MARK PART NO & REV LETTER PER PROCESS 1	9-15-82	
F	CN494782 (D) REX KARL (1) ADDED -5001 LM (2) DELETED ITEMS 6, 5, 1, 9 + 12 FROM THE -0001 LM (3) ADDED ITEM 101 TO -0001 LM (4) ADDED PART NUMBER DESCRIPTION BLOCK	2-7-83	



0993211-5001	BULK CABLE ASSY MATERIAL FOR -0001
0993211-0001	CABLE ASSY EIA EXTENSION
PART NUMBER	DESCRIPTION

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
~~2~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR WHITE, TYPE 9~~	
~~1~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR BLACK, TYPE 6~~	
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL D 1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN E.E. Rodriguez DATE 9-2-76
CHK 11/12/76
ENGR Timothy M. Hines 11/29/76
APVD 11-30-76
12 3 76
CONTR 12/3
REL 12/4/76

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSY,
EIA EXTENSION

SIZE D FSCM NO 96214 DRAWING NO 993211
SCALE NONE SHEET

LM

340

EHS

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION..............................
0993211-0001    F         CABLE ASSY,EIA EXTENSION

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0001      00001.000  0539409-0005   CONNECTOR,PLUG 25 PINS                      EA
                                    AMP    -205208-1
0002      00001.000  0539409-0006   CONNECTOR,RCPT 25 PINS                      EA
                                    AMP    -205207-1
0003      00002.000  2210305-0003   HOOD STRN RLF 45/180DEG,BULK PK 25 PCS      EA
                                    SEE TI- DRAWING
0008      00002.000  0406769-0001   SCREW,SPECIAL,CONNECTOR LOCKING             EA
                                    CIE    - 02C418-2
0013       REF       2265070-0001   SPEC, PRE-PRINTED CABLE MARKER              EA

0101      00001.000  0993211-5001   BULK CABLE ASSY MATERIAL FOR -0001          EA
                                    1221-0211-000
```

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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
0993211-5001    F         BULK CABLE ASSY MATERIAL FOR -0001

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.............................. UM

0005      00025.000  0539430-0003   CONTACT,PIN    24-20AWG .068 INSUL DIA      EA
                                    AMP    -205202-2    ST
0006      00025.000  0539430-0004   CONTACT,SOCKET 24-20AWG .068 INSUL DIA      EA
                                    AMP    -205201-3    ST
0009      00006.500  0972444-0006   CABLE,25COND 22AWG UL LISTED                FT
                                    019007-6918UL
0011      00001.000  0962571-0005   PLATE, ID, EDP CABLE                        EA

0012      00002.000  2210317-0001   LABEL,BLANK,CABLE MARKER                    EA
                                    085480-SLPF-19319-4
```

NOTES: UNLESS OTHERWISE SPECIFIED:

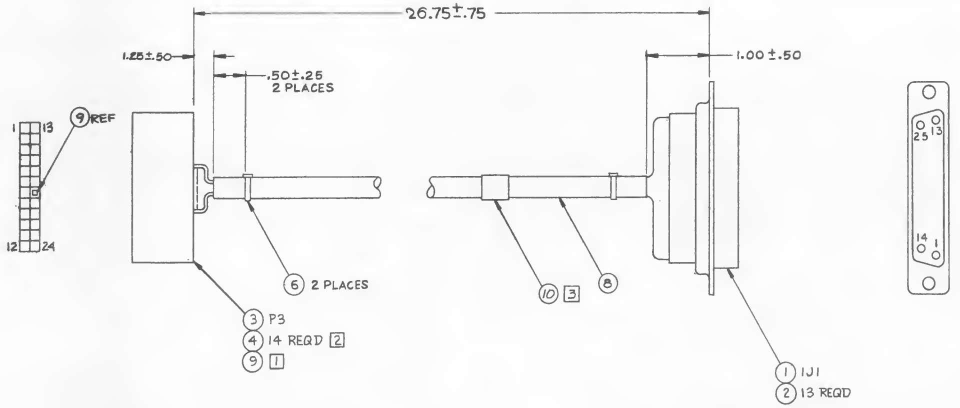
1. INSTALL KEY (ITEM 9) IN POSITION P3-19
2. INSTALL CONTACT (ITEM 4) IN UNUSED POSITIONS P3-13
3. MARK PER 2265070 (ITEM 11) LINE FOUR TEXT "←P3"

WIRE NO.	DESCRIPTION	SIGNATURE EIA	SIGNATURE CCITT	START	FINISH	REMARKS	LM IT NO
1	24AWG WHITE	AA	101	P3-12	1J1-1		5
2		BA	103	6	2		
3		BB	104	9	3		
4		CA	105	1	4		
5		CB	106	11	5		
6		CC	107	4	6		
7		AB	102	7	7		
8		CF	109	10	8		
9		SCA	118	2	11		
10		SCF	119	3	12		
11		CD	108	8	20		
12		CE	125	-5	-22		
13	24AWG WHITE	CH	111	P3-24	1J1-23		5

DWG NO 999742 SH

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN 430884 · A. Patel LM UPDATE	4/10/78	
B	CN440303 J.CLARK 1.) LM: ITEM 2 QTY WAS 12, ITEM 5 QTY WAS 32.5 AND DASH Nº WAS-3999, DESC. OF WIRE WAS 8-22 AWG ITEM 8 DASH Nº WAS-0013, DESC. WAS .263 PVC 2.) ADDED WIRE Nº 13 IN ZC-5, IN ZD-4 ADDED "EIA & CCITT"; DELETED SIGNATURES UNDER REMARKS COLUMN 3.) ZD-8, 2 WAS "INSTALL CONTACTS..... P3-13 AND P3-24	5/19/78	
C	CN439733 J.CLARK 1.) ZB-8 "NEARSIDE" WAS FARSIDE	6/05/78	
D	CN439511 J.CLARK 1.) ZD-3 UNDER "FINISH" 1J1-22 WAS 1J1-21	7/29/78	
E	CN445414 L. Sepeda 1) DELE DIM .75±.25 2) DELE DIM 26.00±.50 3) DIM 24.25±.75 WAS 28.50±1.00 4) Z B-7 ROTATED CABLE 90°	11-22-78	
F	CN445439 Dal Edwards 1.) ZC6 DIM 25.75±.75 WAS 24.25±.75	2/5/79	
G	CN 450993 (D) K. Nguyen (1) ADDED ITEMS 10 AND 11 (2) ADDED NOTE 3 (3) DIM 26.75±.75 WAS 25.75±.75	8/6/79	
H	CN458443 (D) S. Dodson (1) P3 MARKING WAS NEARSIDE	3-10-80	
J	CN 477445 (D) J. Higginbotham (1) ZN B-5,6: DELETED MARKING INSTRUCTIONS (2) ZN C-5: DELETED DIM 2.50±.50 (3) ON LM: ITEM 10 QTY WAS 0; DELETED ITEMS 7, 10A, & 10B (4) NOTE 3 WAS "... TEXT 'EIA'" (5) ZN B-8: DELETED MARKING INSTRUCTIONS	6-24-81	



-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999690	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.006 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

		DATE
DWN	K. Canty	10-10-77
CHK	Louis Villa	4/10/78
ENGR	Walt Russell	4/10/78
APVD	Jim Davis	4/10/78
QA		4/11/78
CONTR		4/11/78
RLSE		4/11/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY,
EIA (INTERNAL)

SIZE D FSCM NO 96214 DRAWING NO 999742
SCALE NONE SHEET

LM

SEQ NO	PROCESS IDENT	PROCESS F-SPEC	CLASSIFICATION NO	CLASSIFICATION ADDITIONAL	NOTES
~~2~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR WHITE TYPE 9~~	
~~1~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR BLACK, TYPE 6~~	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-7914M

FILMED

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION...........................
0999742-0001    J         CABLE ASSEMBLY, EIA (INTERNAL)

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION.......................... UM

0001      00001.000   0539409-0006   CONNECTOR,RCPT 25 PINS                     EA
                                     AMP    -205207-1
0001A                                1J1
                                     AMP    -205207-1
0002      00013.000   0539430-0004   CONTACT,SOCKET 24-20AWG .068 INSUL DIA     EA
                                     AMP    -205201-3     ST
0003      00001.000   0972202-0025   CONNECTOR,.100 CENTER DUAL MINILATCH       EA
                                     BEI    - 65043-025
0003A                                P3
                                     BEI    - 65043-025
0004      00014.000   0972482-0006   CONTACT,ELECTRICAL,CRIMP                   EA
                                     BEI    - 75691-006
0005      00035.000   2210012-2999   WIRE,ELEC,WHT,24 AWG, 19 X 36, UL1429      FT
                                     090484-XVB1936U9P
0006      00002.000   0418212-0040   STRAP,TIEDOWN,ADJUSTABLE,PLASTIC           EA
                                     QPL    - MS3367-4-9
0008      00002.250   0972436-0012   INSULATION,FLEXIBLE                        FT

0009      00001.000   0800335-0001   KEY,POLARIZATION,CONNECTOR                 EA
                                     BEI    --65307-001
0010      00001.000   2210317-0001   LABEL,BLANK,CABLE MARKER                   EA
                                     085480-SLPF-19319-4
0011       REF        2265070-9901   SPEC,PRODUC & INSTAL,PRE-PRT CBL MARKERS   EA
```

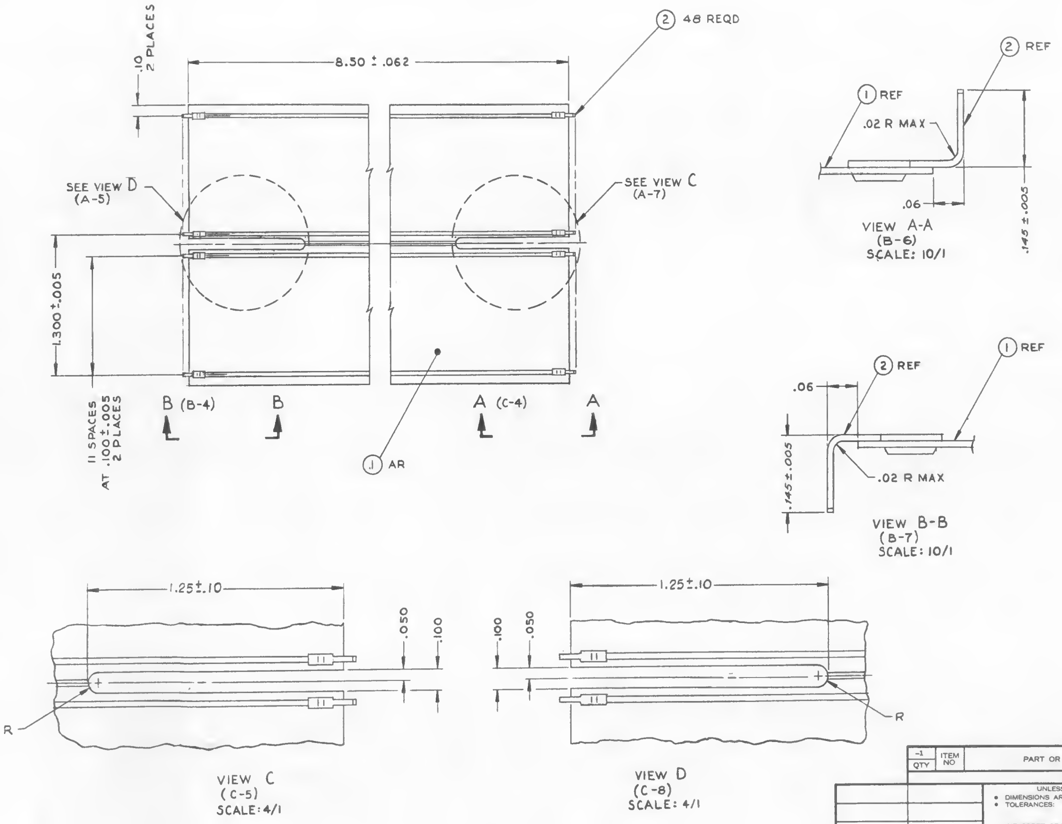
DWG NO 999790 SH

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN430886 J.CLARK 1. UPDATE LM	3/6/78	
B	CN439528 E. Holcombe 8-23-78 1. VIEW A-A, ZONE B-4 & VIEW B-B, ZONE C-4 DIMENSION .145±.005 WAS .12$^{+.02}_{-.00}$	8-30-78	

5

23

NOTES: UNLESS OTHERWISE SPECIFIED:



QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES
-1					

PARTS LIST

NEXT ASSY	USED ON
999686	8740
999695	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 $^{+.004}_{-.001}$	.126 THRU .250 $^{+.005}_{-.001}$	.251 THRU .500 $^{+.006}_{-.001}$
.501 THRU .750 $^{+.008}_{-.001}$	.751 THRU 1.000 $^{+.010}_{-.001}$	1.001 THRU 2.000 $^{+.012}_{-.001}$

		DATE
DWN	E. H. DeLeon	10/21/77
CHK	Mike Way	2/15/78
ENGR	Walt Russell	3/1/78
APVD	Jim Eavis	3/1/78
QA	R. J. SL	3/2/78
CONTR	Jerry E. Hodge	3/6/78
RLSE		3/6/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY,
KEYBOARD

SIZE	FSCM NO	DRAWING NO
D	96214	999790

SCALE 2/1 SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-7514H

34

LM 1 FILMED

LIST OF MATERIALS

```
02/05/83

PART NUMBER   REV       DESCRIPTION..............................
0999790-0001   B        CABLE ASSEMBLY, KEYBOARD

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001      00000.710  0996742-0003   CABLE,ELEC  26AWG 25CNDCT MULTI FLAT      FT
                                    017217-B03B160/25
0002      00048.000  0996748-0004   SOLDER TAB,PLATED 30MIN GOLD OVER NICKEL  EA
                                    000779-86706-6
0003      00000.000  0996774-0001   CABLE,ELECTRICAL, FLAT, FLEXIBLE          EA
                                    000779-88178-3
0003A                               ITEM 3 MAY BE USED AS AN
                                    000779-88178-3
0003B                               ALTERNATE FOR ITEM 1 & 2
                                    000779-88178-3
```

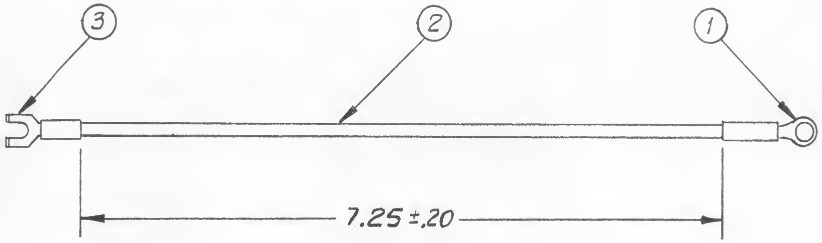
DWG NO 999873 SH

NOTES, UNLESS OTHERWISE SPECIFIED:

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN439832 A. CLARK 1. DIM 7.25±.20 WAS 6.25±.10	6/20/78	

5

22



-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999690	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 −.001	.126 THRU .250 +.005 −.001	.251 THRU .500 +.006 −.001
.501 THRU .750 +.008 −.001	.751 THRU 1.000 +.010 −.001	1.001 THRU 2.000 +.012 −.001

DWN	K. Matsumoto 3-18-78
CHK	Mike Way 4/13/78
ENGR	4/14/78
APVD	Davis 4/14/78
QA	4/14/78
CONTR	B. 4/14/78
RLSE	4/14/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY,
MECHANISM GROUND

SIZE	FSCM NO	DRAWING NO
B	96214	999873

SCALE NONE SHEET

TI-7913J

34

30

LM

FILMED

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV       DESCRIPTION............................
0999873-0001    A        CABLE ASSY, MECHANISM GROUND

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION.............................. UM

0001      00001.000   0232354-0008    LUG,CRIMP,22-16 AWG #8 RING,STRIP-REEL     EA
                                      SEE TI- DRAWING
0002      00000.550   0996286-5455    WIRE,19-STRAND #18 GRN/YELLOW UL-1430      FT
                                      SEE TI- DRAWING
0003      00001.000   0232358-0001    LUG,CRIMP,22-16 AWG,SPADE,STRIP-FORM       EA
                                      SEE TI- DRAWING
```

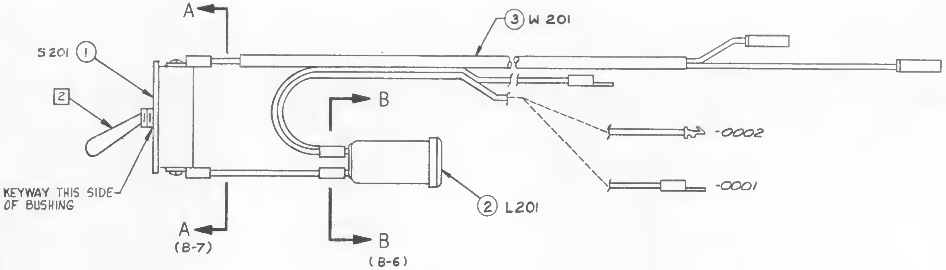
DWG NO 999835 SH

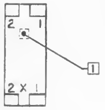
NOTES: UNLESS OTHERWISE SPECIFIED:

1. ANY LETTER (EXCEPT X) MAY BE SUBSTITUTED AT END OPPOSITE TO X
2. DO NOT INSTALL NUTS ON TO SWITCH PRIOR TO ASSEMBLY INTO BASE

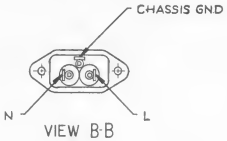
WIRE NO	DESCRIPTION	TOTAL LENGTH	SIGNATURE	START STATION	FINISH STATION	REMARKS	N/A LM ITEM NO
1	WHT/BROWN	—	115 VAC FILTER	L201-L	S201-X2		2
2	WHT/BLUE	—	AC COMM FILTER	L201-N	S201-X1		2
3	WHT/BROWN	—	115 VAC FILSW	W201-BRN	S201-D2	1	3
4	WHT/BLUE	—	AC COMM FILSW	W201-BLU	S201-D1	1	3

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 445494 W. Gohnson 1) ZD-7 5.50±.75 WAS 4.50±.50 2) CHANGED VIEW A-A 3) ADDED FLAG NOTE 1 4) ADDED 1 TO REMARKS COLUMN OF WIRE #3 AND #4	9/29/78	
B	CN 450969 REKHA SETH 1) ADDED -0002 LM	6/18/79	Felipe Espinoza
C	CN435624 (C) S.Dalton (1) ZN C-8, ADDED NOTE "KEYWAY.... BUSHING"	7/2/79	S. Dalton
D	CN469102 (D) Higginbotham (1) ADDED NOTE 2	7-21-80	S. Dalton
E	CN466151 (D) D. Howard (1) ADDED ITEM 5 (2) SH 1 ZN C-5 ADDED ITEM 5 CALLOUT	5-13-81	
F	CN502450 (D) D. Stamm 1) DELETED ITEM 4 FROM DWG, & -1 & -2 LM 2) DELETED SEQ NO 1 FROM PROCESS BLOCK 3) LM -1 ONLY ITEM 2 P/N WAS 999875-0001	7-22-82	M. [illegible]





VIEW A-A
(C-7)



VIEW B-B
(C-7)

PART NUMBER	DESCRIPTION	REMARKS
999835-0002	CABLE ASSY, POWER DISTRIBUTION (BPO)	BRITISH POST OFFICE
999835-0001	CABLE ASSY, POWER DISTRIBUTION	DOMESTIC

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999690	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN A B Patel DATE 3/23/78
CHK [illegible] 4/14/78
ENGR Walt Russell 4/14/78
APVD [illegible] 4/14/78
QA [illegible] 4/14/78
CONTR [illegible] 4/14/78
RLSE [illegible] 4/14/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY, POWER DISTRIBUTION.

SIZE D FSCM NO 96214 DRAWING NO 999835
SCALE 1/1 SHEET

PROCESS				
SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL CLASSIFICATION

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

340 LM

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
0999835-0001    F         CABLE ASSY, POWER DISTRIBUTION

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION............................ UM

0001      00001.000   0996656-0001    TOGGLE SWITCH                               EA
                                      027193-7320K55
0001A                                 S201
                                      027193-7320K55
0002      00001.000   2206556-000     FILTER ASSY,EMI                             EA
                                      1221-0000-000
0002A                                 L201
                                      1221-1556-000
0003      00001.000   0999876-0001    CABLE ASSY, PRIMARY POWER                   EA
                                      1221-1876-020
0003A                                 W201
                                      1221-1876-020
```

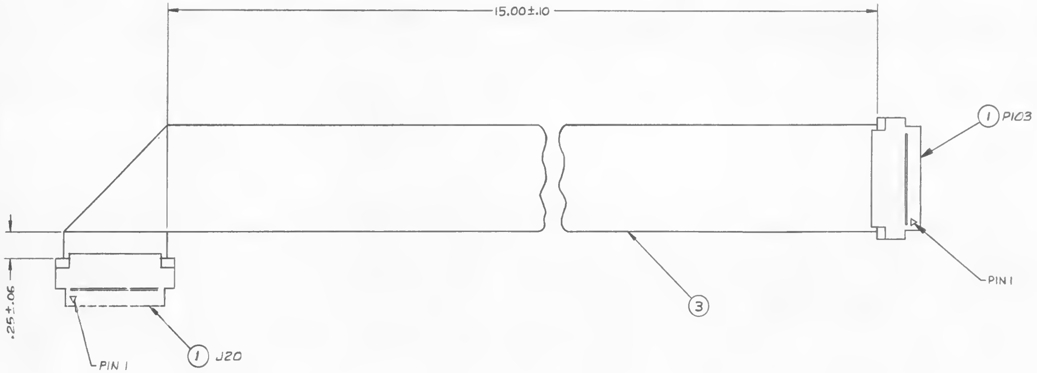
NOTES: UNLESS OTHERWISE SPECIFIED:

WIRE NO.	DESCRIPTION	SIGNATURE	START	FINISH	REMARKS	LM ITEM NO.
1	CABLE, FLAT	GND	J20-1	P103-1		3
2		SOL 6	2	2		
3		4	3	3		
4		2	4	4		
5		5	5	5		
6		1	6	6		
7		7	7	7		
8		SOL 3	8	8		
9	CABLE, FLAT	COMMON	J20-9	P103-9		3

DWG NO 999791 SH

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 439799 A R Patel LM UPDATE		
B	CN 477446 (C) M [illegible] (1) DELETED MARKING CALLOUTS (2) ADDED ITEM [illegible] FD AND LM	6-2-81	[illegible]
C	CN457576 (D) SDodson (1) ITEM 1 WAS 996877-1, QTY 1 (2) ITEM 2 WAS QTY 1, ITEM 4 WAS QTY 18 (3) ADDED 2A, 2B, 4A AND 4B TO LM (4) DELETED ITEM 5 AND PROCESS 1 (5) REVISED PICTORIAL OF P103 AND J20 (6) SCALE WAS 4/1	5-25-82	M [illegible]
D	CN495685 (D) DHOWARD (1) DEL IT 3, 4, & 5 ON -0001 LM AND ADDED SAME IT 3, 4, & 5 TO -5001 LM (2) -0001 LM, ADDED IT 101	8/24/82	M Kuch
E	CN494788 (D) M Kuch (1) ON -5001 LM, ITEM 4 WAS QTY 18	11-6-82	[illegible]

2:3



PART NUMBER	DESCRIPTION
0999791-5001	BULK CABLE ASSY MATL FOR -0001
0999791-0001	CABLE ASSY, PRINTHEAD

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999689	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 + .004 − .001	.126 THRU .250 + .005 − .001	.251 THRU .500 + .006 − .001
.501 THRU .750 + .008 − .001	.751 THRU 1.000 + .010 − .001	1.001 THRU 2.000 + .012 − .001

		DATE
DWN	A R Patel	4/4/78
CHK	[illegible] Villa	4/19/78
ENGR	Walt Russell	4/[illegible]/78
APVD	Jim Davis	4/24/78
QA	Reg [illegible]	
CONTR	[illegible]	4/2[illegible]/78
RLSE	[illegible]	4/26/78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY,
PRINTHEAD

SIZE	FSCM NO	DRAWING NO
D	96214	999791

FILMED

SCALE NONE SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
~~1~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR WHITE TYPE 9~~	
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

340

LM

E I S

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999791-0001    E         CABLE ASSY,PRINTHEAD

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

0001      00002.000  2211406-0005    CONNECTOR,CABLE,9CKT,TIN-LEAD PLATE       EA

0001A                                J20,P103

0002      00000.000  0996747-0001    HOUSING,CONN,9 POS,CABLE OR ROUND WIRE    EA
                                     000779-86572-1
0002A                                *MAY BE USED WITH ITEM 4
                                     000779-86572-1
0002B                                *QTY 18 AS A SUB FOR ITEM 1
                                     000779-86572-1
0101      00001.000  0999791-5001    BULK CABLE ASSY MATERIAL FOR -0001        EA
                                     1221-0791-057
```

6-278

NOTES, UNLESS OTHERWISE SPECIFIED:

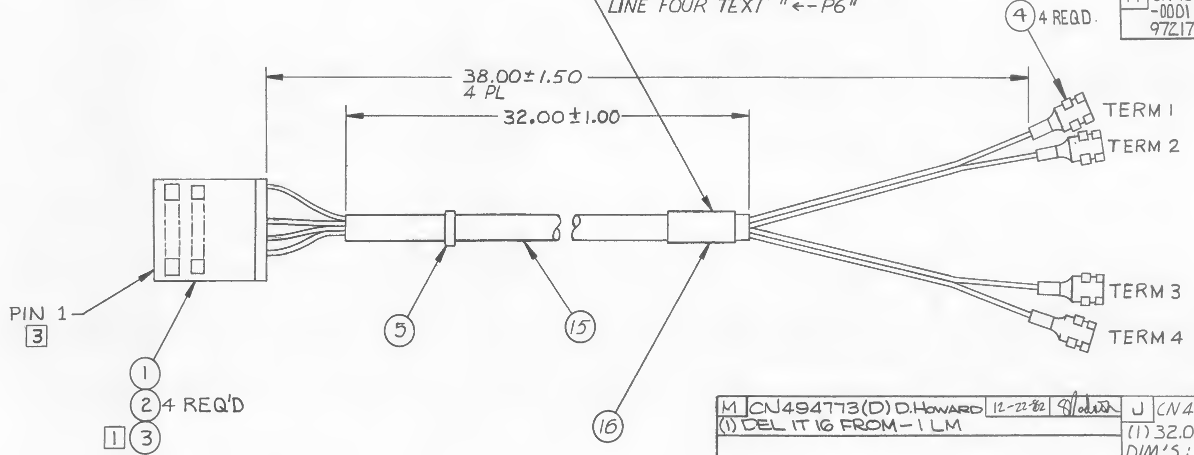
1 INSTALL KEY (ITEM 3) IN POSITION P6-5

2. POSITION P6-1 IS NOT USED

3 PIN 1 IDENTIFIER IS VENDOR NAME MOLDED IN PART

WIRE NO	DESCRIPTION	TOTAL LENGTH	SIGNATURE	COMPONENT CONNECTION FOR START STATION	COMPONENT CONNECTION FOR FINISH STATION	REMARKS	LM ITEM NO
1	BLU/WHT	AR	RIB REVSW	P6-2	TERM 1		11
2	VIO/WHT	AR	SWRTN	P6-3	TERM 2		12
3	YEL/WHT	AR	PAPOUTSW	P6-4	TERM 3		13
4	ORG/WHT	AR	SW RTN	P6-6	TERM 4		14

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 425867 A Bhalel LM UPDATE	4/17/78	MAW
B	CN 439798 R Nelson LM UPDATES	4/12/78	MAW
C	CN 439607 L. Fair ITEM 9 PN WAS 972436-12	4/28/78	L. Villa
D	CN439819 C. Davis ITEM 9 PN WAS 972436-11	3-24-79	D. Starnes
E	CN443616 C. Davis ITEM 3 PN WAS 972599-1	4-28-79	D. Starnes
F	CN439162 M. Hagedorn 1) ITEM 1A DESCIPTION WAS P306	5/12/79	L. Villa
G	CN458469 (D) J. HIGGINBOTHAM (1) ITEM 5 QTY WAS 3 (2) DELETED DIM 1.00±.50 2 PL	5/20/80	S Dodson
H	CN452330 (D) M Kuhn (1) ON -0001 LM, ITEM 4 P/N WAS 972171-55	8-20-80	S Dodson
J	CN457248 (D) Joe Higginbotham (1) 32.00±1.00 DIM WAS 33.00±1.50 (2) DELETED DIM.'S: 34.00±1.50 ; 1.00±.75 (3) ADDED DIM 38.00 ±1.50, 4 PL	11-7-80	S Dodson
K	CN477810 (D) J. Higginbotham (1) ZN C-4: DELETED MARKING INSTRU (2) ZN C-3: "MARK PER..." NOTE WAS "MARK APPROPRIATE P/N ; REV LETTER PER PROCESS 1" (3) ON LM: DELETED ITEMS 9 ; 10; ADDED ITEMS 15 ; 16	5/29/81	[illegible]
L	CN495682 (D) M. DURHAM (1) CREATED -5001 LM (2) ON -0001 LM DELETED ITEMS 2,3,4,11,12,13,14,15,5, ADDED ITEM 101 (3) DELETED ITEM 5 AND DIMENSION (REV CONT B-2)	11-1-82	S Dodson
M	CN494773 (D) D. HOWARD (1) DEL IT 16 FROM -1 LM	12-22-82	S Dodson


MARK PER DRAWING 2265070 LINE FOUR TEXT "←-P6"

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1°
  - 3 PLACE DECIMALS ±.010
  - 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU 750 +.008 -.001	.751 THRU 1 000 +.010 -.001	1.001 THRU 2 000 +.012 -.001

		DATE
DWN	S. Piercy	10-24-77
CHK	Mike Uhl	4/17/78
ENGR	[illegible]	4/20/78
APVD	Jim Davis	4/24/78
QA	R. J. [illegible]	4/24/78
CONTR	Jerry B Hodge	4/21/78
RLSE	[illegible]	4/26/78

NEXT ASSY	USED ON
999689	8740

APPLICATION

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY, PAPER OUT/RIBBON SW.

SIZE	FSCM NO	DRAWING NO
C	96214	999735

SCALE NONE

SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
2	MARK	100-07	712	COLOR WHITE, TYPE 9	
1	MARK	100-07	712	COLOR BLACK, TYPE 6	

PROCESS | CLASSIFICATION

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI-9925H

DWG NO 999735 SH

23

340

1 LM

FILMED

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999735-0001     M        CABLE ASSY, PAPER OUT

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   0972484-0006   CONNECTOR HOUSING 6 CONTACT                EA
                                     AMP    - 1-87175-3
0001A                                P6
                                     AMP    - 1-87175-3
0101      00001.000   0999735-5001   BULK CABLE ASSY MATERIAL FOR -0001         EA
                                     1221-0735-054
```

```
02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0999735-5001     M        BULK CABLE ASSY MATERIAL FOR -0001

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0002      00004.000   0972104-0001   CONTACT ELEC-LOCKING,WIRE-TO.025 SQ POST   EA
                                     AMP    - 87124-1
0003      00001.000   0996497-0001   KEYING PLUG CONNECTOR                      EA
                                     086286--1
0004      00004.000   0996673-0010   TERMINAL,QUICK-CONNECT,24-20 WIRE SIZE     EA
                                     SEE TI- DRAWING
0011      00003.400   0935170-3699   WIRE,UL 1429,19 STRD,22AWG,WHT/BLU         FT
                                     1650-0000-000
0012      00003.400   0935170-3799   WIRE,UL 1429,19 STRD,22AWG,WHT/VIO         FT
                                     1650-0000-000
0013      00003.400   0935170-3499   WIRE,UL 1429,19 STRD,22AWG,WHT/YEL         FT
                                     1650-0000-000
0014      00003.400   0935170-3399   WIRE,UL 1429,19 STRD,22AWG,WHT/ORN         FT
                                     1294-0000-000
0015      00003.000   0972436-0036   INSUL SLVG,#4 PVC .208 ID .020THK          FT
                                     003890-HT-105C-4
0016      00001.000   2210317-0001   LABEL,BLANK,CABLE MARKER                   EA
                                     085480-SLPF-19319-4
```

DWG NO 2207634 SH

NOTES: UNLESS OTHERWISE SPECIFIED:

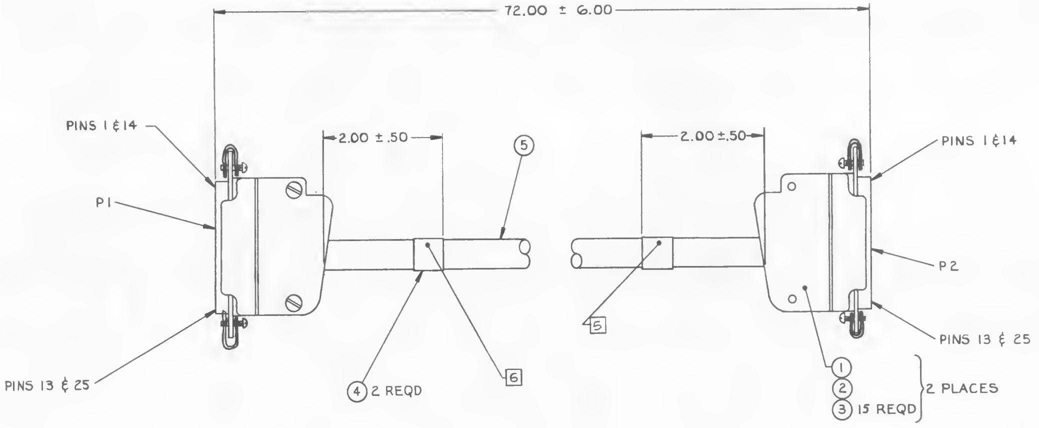
1. CABLE CLAMP SCREWS & RETAINER CLIPS & SCREWS INCLUDED WITH ITEM 2
2. RETAINER CLIP INSTALLED WITH THREADED HOLE ON SAME SIDE AS SCREW HEAD
3. ~~SCREWS MUST BE THREADED COMPLETELY THRU RETAINER CLIPS~~
4. RETAINER CLIPS AND SCREWS INCLUDED WITH ITEM 2 ARE TO BE PLACED IN A PLASTIC BAG AND SECURED TO CABLE

5. MARK PER 2265070

6. MARK PER 2225070, ONE LINE ONLY, TEXT "ASYNCH/SYNCH EIA"

WIRE COLOR	WIRE NO	DESCRIPTION	START STATION	FINISH STATION	SIGNATURE	ITEM NO	REMARKS
BLK	1	22 AWG CABLE	P1 - 1	P2 - 1	AA	5	PROTECTIVE GROUND
WHT	2		2	2	BA		TRANSMITTED DATA
RED	3		3	3	BB		RECEIVED DATA
GRN	4		4	4	CA		REQUEST TO SEND
ORN	5		5	5	CB		CLEAR TO SEND
BLU	6		6	6	CC		DATA SET READY
WHT/BLK	7		7	7	AB		SIGNAL GROUND
RED/BLK	8		8	8	CF		RECEIVED LINE SIGNAL DETECTOR
GRN/BLK	9		11	11	SCA		SEC. CLEAR TO SEND
ORN/BLK	10		12	12	SCF		SEC. REC'D LINE SIGNAL DETECTOR
BLU/BLK	11		20	20	CD		DATA TERMINAL READY
BLK/WHT	12		22	22	CE		RING INDICATOR
RED/WHT	13		23	23	CH		DATA SIGNAL RATE SELECTOR (DTE)
GRN/WHT	14		15	15	DB		TRANSMISSION SIGNAL ELEMENT TIMING
BLU/WHT	15	22 AWG CABLE	P1 - 17	P2-17	DD	5	RECEIVER SIGNAL ELEMENT TIMING

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN441319(C) S Dodson (1) NOTES 1 AND 2 WERE FLAG NOTES (2) DELETED NOTE 3 (3) ADDED: NOTE 4 AND ITEM 7	1-14-80	S Dodson
B	CN495692 (D) D HOWARD (1) ON -0001 LM, DEL IT 3 & 5 AND ADDED IT 101 (2) CREATED -5001 LM WITH IT 3 & 5 (PN 0539430-3 & 0972~~444~~-2 RESPECTIVELY	8-24-82	M Yaka
C	CN497512 (D) D HOWARD (1) REV PER EXT ENGR CHNGS	6/13/83	
D	CN506688 (D) D HOWARD (1) DELETED PROCESS 2	6/13/83	



PART NUMBER	DESCRIPTION
2207634-0001	CABLE ASSY, ASYNCH/SYNCH EIA
2207634-5001	BULK CABLE ASSY MATL FOR -0001

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ± 010 2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL D 1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU 125 + 004 - 001	126 THRU 250 + 005 - 001	251 THRU 500 + 006 - 001
501 THRU 750 + 008 - 001	751 THRU 1 000 + 010 - 001	1 001 THRU 2 000 + 012 - 001

NEXT ASSY	USED ON
999683	8740

APPLICATION

DWN	D Vykoukal	6·16·79
CHK	D Starnes	8-21-79
ENGR	Walt Russell	8-22-79
APVD	C Nash	8-23-79
QA	C Bradford	8/22/79
CONTR	Lyn Baird	8-22-79
RLSE		8/24/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas Texas

CABLE ASSEMBLY, ASYNCH/SYNCH EIA

SIZE D FSCM NO 96214 DRAWING NO 2207634

SCALE NONE SHEET

SEQ NO	IDENT	F SPEC	NO	ADDITIONAL	NOTES
~~2~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR WHITE, TYPE 9~~	
~~1~~	~~MARK~~	~~100-07~~	~~712~~	~~COLOR BLACK, TYPE 6~~	
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

TI 7814H

340 LM

FILMED

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION.............................
2207634-0001	B	CABLE ASSY,ASYNCH/SYNCH EIA

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0001	00002.000	0539409-0005	CONNECTOR,PLUG 25 PINS AMP -205208-1	EA
0002	00002.000	0539903-0001	HOOD,CONN 25 PIN WITH RETAINERS AMP - 206478-3	EA
0004	00002.000	0418201-0060	STRAP,MARKER,ADJUSTABLE,PLASTIC QPL-MS-3368-1-9B	EA
0006	REF	2207635-0001	TEST PGM,ASYNCH/SYNCH EIA CABLE OMNI	EA
0007	00001.000	0532997-0004	BAG POLYETHLENE HEAT SEALED 6 X 8	EA
0101	00001.000	2207634-5001	BULK CABLE ASSY MAT'L FOR -1 1221-0634-037	EA

02/05/83

PART NUMBER	REV	DESCRIPTION.............................
2207634-5001	B	BULK CABLE ASSY MAT'L FOR -1

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION..............................	UM
0003	00030.000	0539430-0003	CONTACT,PIN 24-20AWG .068 INSUL DIA AMP -205202-2 ST	EA
0005	00006.500	0972444-0002	CABLE,15COND 22AWG UL LISTED	FT

DWG NO 2217354 | SH | LEVEL 2 | 5915 5000

1

APPLICATION	
NEXT ASSY	USED ON
999690	8740

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN 483488 (E)	7/17/81	
B	CN 489394 (E)	9/03/81	
C	CN 482312 (E)	11/12/81	
D	CN 492385 (E) LIVIA HAMPTON	12/22/81	
E	CN492863 (E) REX KARL	11-8-85	

~~96~~
2

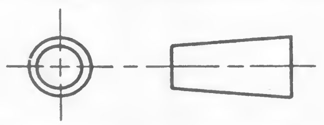
1.0 SCOPE:

THIS SPECIFICATION COVERS THE REQUIREMENTS FOR AN AC LINE FILTER

2.0 APPLICABLE DOCUMENTS:

WHERE THIS SPECIFICATION REFERS TO ANOTHER DOCUMENT, THAT DOCUMENT IS OF THE ISSUE IN EFFECT ON THE DATE OF INVITATION TO BID OR REQUEST FOR PROPOSAL. REFERENCED DOCUMENTS APPLY TO THE EXTENT SPECIFIED HEREIN. THIS SPECIFICATION GOVERNS WHEN A REFERENCED DOCUMENT CONFLICTS

THIRD ANGLE PROJECTION



ALL DIMENSIONS ARE IN MILLIMETERS
METRIC (SI) GENERAL TOLERANCE
2 PLACE DECIMAL = ±0.25mm
1 PLACE DECIMAL = ±0.5mm

METRIC

SPECIFICATION CONTROL DRAWING

REV STATUS OF SHEETS	REV	E	C	C	E	E	C	–	C
	SHEET	1	2	3	4	5	6	7	8

UNLESS OTHERWISE SPECIFIED
- ~~DIMENSIONS ARE IN INCHES~~
- ~~TOLERANCES:~~
  ~~ANGLES ±1°~~
  ~~3 PLACE DECIMALS ±.010~~
  ~~2 PLACE DECIMALS ±.03~~
- PARENTHETICAL INFO FOR REF ONLY

SEE CONVERSION CHART FOR METRIC (SI) EQUIVALENT DIMENSIONS

DWN	DATE 4/17/80
CHK	
ENGR	9-11-80
APVD	1-7-81
QA	1/15/81
CONTR	1/16/81
RLSE	1/19/81

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

FILTER, AC LINE

SIZE	FSCM NO	DRAWING NO	
A	96214	2217354	FILMED
SCALE	NONE	SHEET	1 OF 8

E
I
S

3.0 REQUIREMENTS:

3.1 PHYSICAL: SEE FIGURE 1

3.1.1 CONSTRUCTION: THE FILTER SHALL BE U.L. (UNDERWRITERS LABORATORIES) RECOGNIZED AND A CSA (CANADIAN STANDARDS ASSOCIATION) CERTIFIED COMPONENT.

3.1.1.4 THE MATING FACE OF THE LINE RECEPTACLE SHALL BE IN ACCORDANCE WITH CEE 22 (IEC 320) SHEET VI

3.1.2 CASE: TIN-PLATED METAL OR EQUIVALENT

3.1.3 LEADS: COLOR CODED PER FIGURE 1. INSULATION SHALL MEET THE REQUIREMENTS OF CEE PUBLICATION 2 OR 13. ALL WIRING SHALL BE RATED UL V-2 OR BETTER.

3.1.4 ENVIRONMENTAL: THE FILTER SHALL WITHSTAND A 75 g SHOCK LOAD AND VIBRATIONS OF 2 g MAXIMUM OVER THE FREQUENCY RANGE FROM 10 TO 300 Hz, 6 MINUTES, LINEAR SWEEP

3.1.4.1 STORAGE TEMPERATURE: -40 TO 85 °C

3.1.4.2 OPERATING TEMPERATURE: 5 TO 50 °C

3.1.5 MARKINGS: MANUFACTURERS CODE, IDENTIFICATION, PART NUMBER, DATE AND TI PART NUMBER

3.2 ELECTRICAL:

3.2.1 VOLTAGE RATINGS: 250 VAC, 50/60 Hz OPERATING

3.2.2 LOAD CURRENT: 3 A AT 115V AND 1.5 A AT 240V AND 40 °C AMBIENT TEMPERATURE

3.2.3 LEAKAGE CURRENT: 1.5 mA MAXIMUM AT 250 VAC, 60 Hz LINE TO GROUND

3.2.4 SWITCH: TWO-POLE SINGLE-THROW, TWO-CIRCUIT CONFIGURATION, (ON-NONE-OFF)

3.2.5 SWITCH CURRENT RATINGS: 10 AMPERES, 125 VAC OR DC, 8 AMPERES, 250 VAC OR DC

3.2.6 TEST VOLTAGE: APPLIED WITH SWITCH IN "ON" POSITION

3.2.6.1 1500 VDC FOR 2 SECONDS (LINE TO NEUTRAL)

3.2.6.2 2500 VDC FOR 2 SECONDS (LINE AND NEUTRAL CONNECTED RELATIVE TO EARTH)

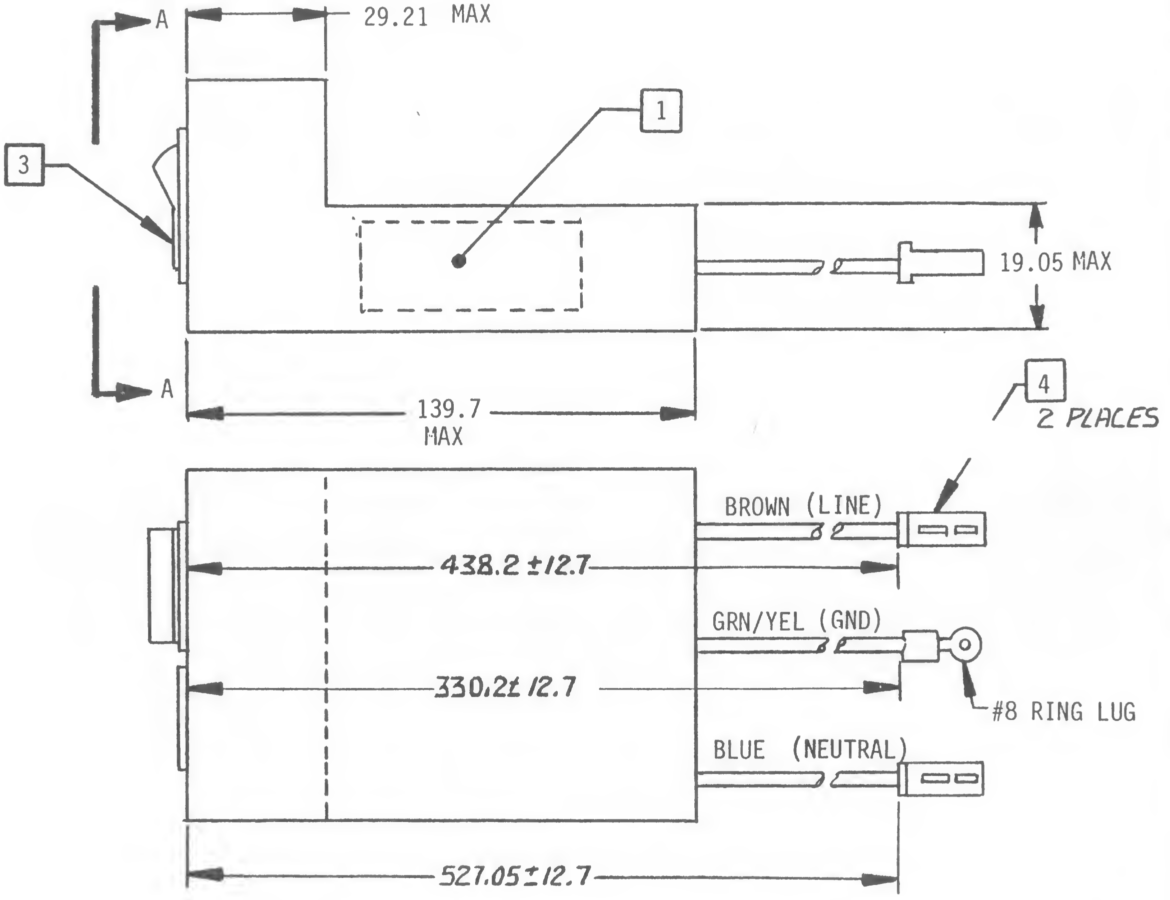
3.2.7 RECEPTACLE CURRENT/VOLTAGE: 6 A/250 VAC

3.2.8 INSULATION RESISTANCE: 12,000 X 10^6 OHMS AT 100 V, ANY INPUT/OUTPUT TO GROUND

3.2.9 INSERTION LOSS: WHEN MEASURED UNBALANCED, TERMINATED INTO 50 OHMS (SEE FIGURE 2), THE INSERTION LOSS OF THE FILTER SHALL BE AS TABULATED IN TABLE I

3.2.9.1 RFI LIMITS: THE INTENTION FOR THE USE OF THIS FILTER IS THAT THE EQUIPMENT IN WHICH IT IS INSTALLED MEET FCC LEVEL A SPECIFICATIONS ON CONDUCTED INTERFERENCE.

CONVERSION CHART	
mm	INCHES
0.25	.010
0.5	.02
5.08	.200
2.34	.092
12.7	.50
19.05	.750
4.6	.18
29.21	1.15
44.4	1.75
17.1	.67
63.5	2.50
190.5	7.49
298.5	11.73
139.7	5.50
387.35	15.25
33.2	1.30
34.2	1.35
53.3	2.10
48.3	1.90
330.2	12.98
438.2	17.22
527.05	20.750



NOTES:

1. MARKING PER 3.1.5 ON THIS SURFACE
2. CENTERLINE FOR INSERT, CONNECTOR, AND SWITCH
3. SWITCH SHOWN IN OFF POSITION
4. TI PART NUMBER 996004-0018 CONNECTOR HOUSING (AMP PART NUMBER 87270-1 OR EQUIVALENT) AND TI PART NUMBER 996000-0004 CONNECTOR CONTACT (AMP PART NUMBER 87269-2 OR EQUIVALENT)

FIGURE 1 CONTD

TEXAS INSTRUMENTS
INCORPORATED
DIGITAL SYSTEMS DIVISION
HOUSTON, TEXAS

A

2217354

SHEET 4

REV E

TI—4259-E

FIGURE 1 (·CONT).

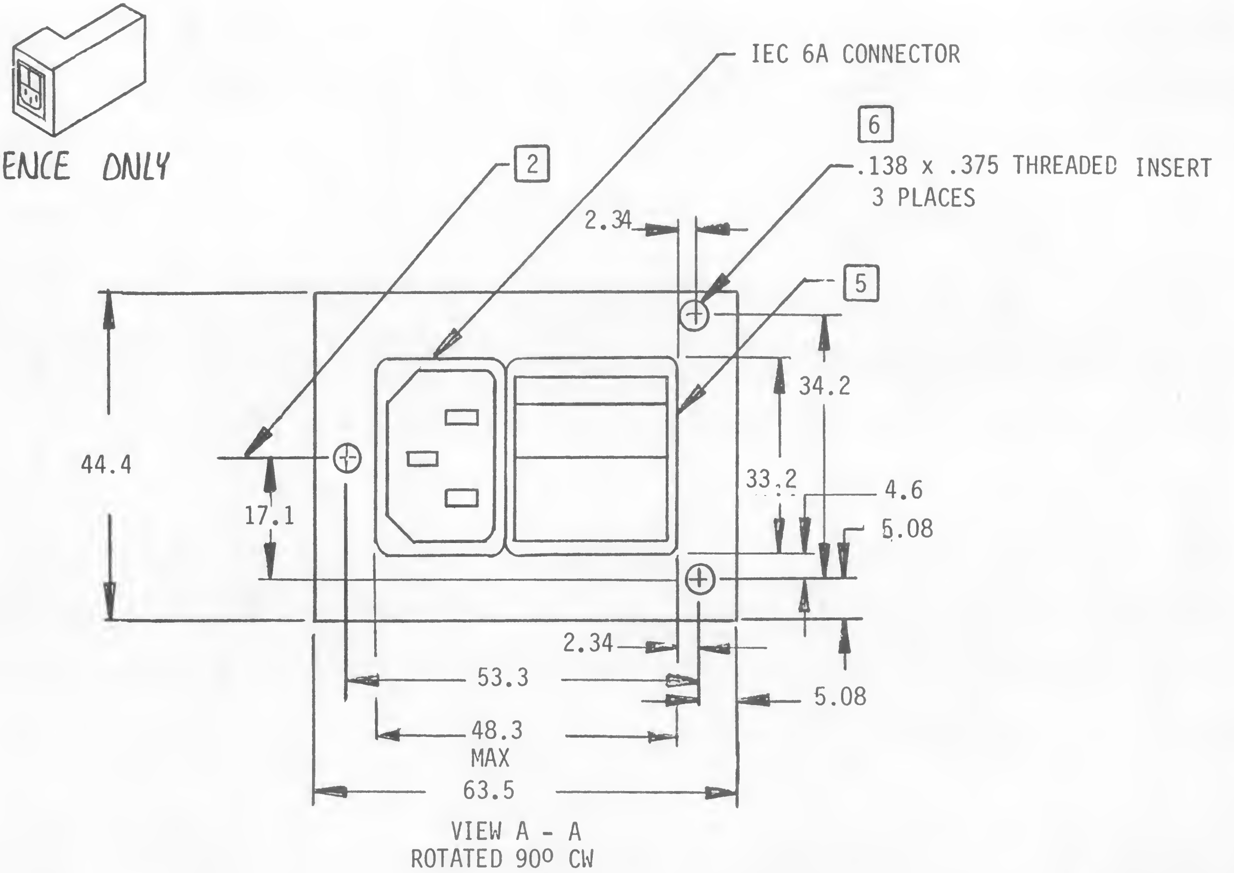


FIGURE 1 (CONT)

5 TI PART NUMBER 2211949-0001 SWITCH (MARQUARDT/MARCOM 1602.0126)

6 SCREW THREADS ARE IN INCHES

~~7 WIRE LENGTHS GIVEN ARE FOR ENCLOSURES OF MAXIMUM LENGTH. FOR SHORTER ENCLOSURES THE WIRE LENGTHS MUST BE INCREASED BY THE AMOUNT WHICH THE ENCLOSURE FALLS SHORT OF THE MAXIMUM LENGTH.~~

TEXAS INSTRUMENTS
INCORPORATED
DIGITAL SYSTEMS DIVISION
HOUSTON, TEXAS

A

2217354

SHEET 5

REV
E

FREQUENCY	INSERTION LOSS (MINIMUM)
50 kHZ	10 dB
100 kHZ	20 dB
500 kHZ	70 dB
1.0 MHZ	70 dB
5.0 MHZ	55 dB
10.0 MHZ	50 dB
20.0 MHZ	45 dB
30.0 MHZ	40 dB

TABLE I

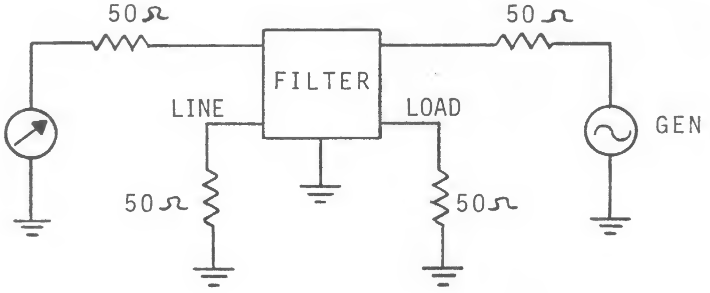


FIGURE 2

4.0 QUALITY ASSURANCE PROVISIONS:

4.1 RESPONSIBILITY FOR INSPECTION:

UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR PURCHASE ORDER, THE SUPPLIER SHALL BE RESPONSIBLE FOR PERFORMING INSPECTIONS THAT ARE SUFFICIENT TO ASSURE THAT THE PARTS SUPPLIED MEET THE REQUIREMENTS SPECIFIED HEREIN.

4.2 LOT ACCEPTANCE:

LOTS FURNISHED TO THIS SPECIFICATION SHALL BE CAPABLE OF PASSING A SAMPLING INSPECTION FOR DEFECTS TO AN ACCEPTABLE QUALITY LEVEL (AQL) OF ONE PERCENT FOR NORMAL SINGLE SAMPLING, LEVEL II, PER MIL-STD-105. FAILING LOTS SHALL BE SUBJECT TO REJECTION.

5.0 PREPARATION FOR DELIVERY:

5.1 PACKAGING:

PACKING AND WRAPPING SHALL BE SUFFICIENT TO PROTECT AGAINST DAMAGE OR LOSS DURING SHIPMENT FROM THE SUPPLIER TO THE DESTINATION SPECIFIED IN THE PURCHASE ORDER.

5.2 MARKING:

THE SHIPPING CONTAINER SHALL BE MARKED WITH THE TI PART NUMBER (SEE PART NUMBER BLOCK) AND THE COUNT CONTAINED. ADDITIONAL MARKINGS ARE PERMITTED.

SUGGESTED SOURCE(S) OF SUPPLY:

1. TRI-MAG, INCORPORATED
8204 WEST DOE AVE.
VISALIA, CA 93277

2. STANDFORD APPLIED ENGINEERING (SAE)
340 MARTIN
SANTA CLARA, CA 95050

3. POTTER CO.
P.O. BOX 337
NORTH HIGHWAY 51
WESSON, MI 39191

TEXAS INSTRUMENTS PART NUMBER	MANUFACTURER'S PART NUMBERS		
	SOURCE 1	SOURCE 2	SOURCE 3
2217354-0001	L2-7/C1	F14540	5004-0921

	TEXAS INSTRUMENTS INCORPORATED DIGITAL SYSTEMS DIVISION HOUSTON, TEXAS	A	2217354 SHEET 8	REV C

TI—4259-E

NOTES, UNLESS OTHERWISE SPECIFIED:
1. CABLE CLAMP SCREWS AND RETAINER CLIPS INCLUDED WITH ITEM 1.
2. RETAINER CLIP INSTALLED WITH THREADED HOLE ON SAME SIDE AS SCREW HEAD
3. SCREWS MUST BE THREADED COMPLETLY THRU RETAINER CLIP

WIRE NO.	DESCRIPTION	TOTAL LENGTH	SIGNATURE	START STA.	FINISH STA.	REMARKS	ITEM NO.
1	22 AWG GREEN	77	TTYXMTD/R	P19-2	E1		4
2	22 AWG WHITE	77	TTYXMTD	P19-1	E2		4
3	22 AWG RED	77	TTYRCVD	P19-5	E3		4
4	22 AWG BLACK	77	TTYRCVD/R	P19-4	E4		4

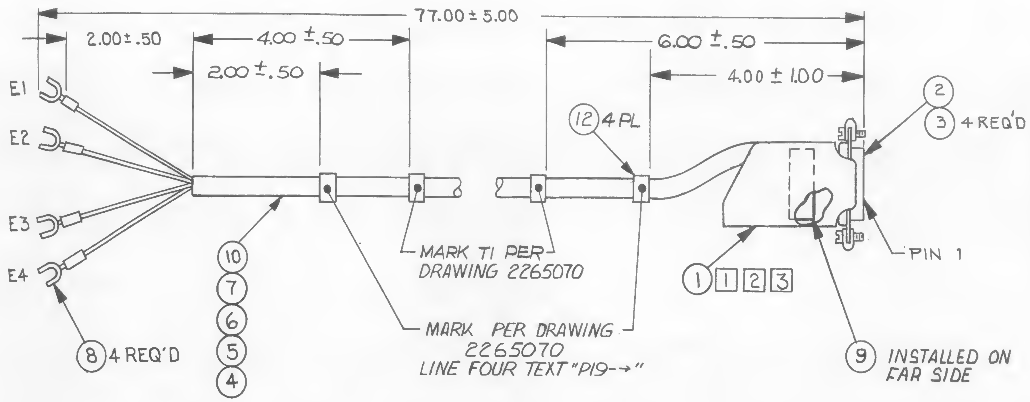
WIRE LIST FOR CABLES PRIOR TO REV F

1	22AWG BRN/WHT	77	TTYXMTD/R	P19-2	E1
2	22AWG ORN/WHT	77	TTYXMTD	P19-1	E2
3	22AWG YEL/WHT	77	TTYRCVD	P19-5	E3
4	22AWG RED/WHT	77	TTYRCVD/R	P19-4	E4

REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	423233 (D) R Cantu 1-21-77 FORMAL RELEASE	1/21/77	
	B	CN 423623 Larry King 1) ITEM 9 WAS LOCATED 2.00 ± .50 FROM BASE OF P19 (2) ADDED TRUE LENGTH REF TO ITEM 10	5-2-77	
	C	CN426133 J. Piercey (1) DELE 73.5 TRU LGTH DIM FROM ITEM 10 CALLOUT ON F/D (2) REDREW P19 & RELOCATED PIN 1 CALLOUT TO BOTTOM OF P19	7-25-77	
	D	CN434167 (E) R Dalgena (1) ITEMS 8 + 10 WERE 232361-2 + 411634-2600 RESP	9/28/78	R Dalgena
	E	CN439015 (D) J.B. PEPP (1) ITEM 9 QTY WAS 1.0 (2) ADDED DIM'S FOR ITEM 9	6/20/79	Dalgena
	F	CN 459601 (E) R Dalgena (1) REVISED WIRING LIST (2) LM DELETED ITEMS 5, 6, 7, 10, ITEM 6 WAS 538347-3199	8/8/79	R Dalgena
	G	CN477828 (D) J. Higginbotham (1) ON LM: DELETED ITEM 9; ADDED ITEM 12 (2) ZN B2: DELETED "MARK PER PROCESS 2" (3) ZN C-3: "MARK TI..." WAS "MARK TI PER PROCESS 1" (4) ZN B-3 "MARK PER..." WAS "MARK APPROPRIATE P/N & REV. LETTER PER PROCESS 1" (5) ZN C-2: DELETED "P19"	5/28/81	R Dalgena
	H	CN495456 (D) M. DURHAM (1) ADDED ITEM 9	9-9-82	

02



SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL
2	MARK	100-07	712	CLR WHITE TYPE 9
1	MARK	100-07	712	CLR BLACK TYPE 6
	PROCESS			CLASSIFICATION

FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

-2	-1	ITEM NO	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION
QTY REQD						

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIR
- DIMENSIONAL LIMITS APPLY BEFORE FINISH PROCESSING
- IDENTIFYING NUMBERS SHOWN IN PARENTHESES FOR REFERENCE ONLY
- INTERPRET DRAWING IN ACCORDANCE WITH MIL-STD-100

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

NEXT ASSY	USED ON
994402	8733

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  ANGLES ± 1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02

		DATE
DWN	Debbie Smith	1-14-77
CHK	Vernon C. Hanson	1/21/77
ENGR		1/25/77
QA		1/25/77
APVD	Jim Adams	1/25/77
CONTR NO		1/25/77
DESIGN ACTIVITY RELEASE		2/2/77

TEXAS INSTRUMENTS INCORPORATED
Equipment Group Dallas, Texas

CABLE ASSEMBLY, CURRENT LOOP

SIZE	CODE IDENT NO	DRAWING NO
C	96214	994403

SCALE NONE SHEET

C 994403

E I S

LM

340

FILMED

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
0994403-0001     H        CABLE ASSY, CURRENT LOOP

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001      00001.000  2210305-0001   HOOD STRN RLF 45/180DEG,BULK PK 9 POS      EA
                                    000779-2-206478-0
0002      00001.000  0539409-0001   CONNECTOR, RACK & PANEL, PLUG, 9POS        EA

0003      00004.000  0539430-0003   CONTACT,PIN    24-20AWG .068 INSUL DIA     EA
                                    AMP    -205202-2     ST
0004      00006.500  0972444-0011   CABLE,4 COND 22 GA .195 OD                 FT
                                    092194-5004
0008      00004.000  0232358-0001   LUG,CRIMP,22-16 AWG,SPADE,STRIP-FORM       EA
                                    SEE TI- DRAWING
0009      00001.000  0962571-0005   PLATE, ID, EDP CABLE                       EA

0011       REF       0983407-9901   TEST PROG,MC810 TTY OPTION CABLE-OMN1      EA

0012      00001.000  2210317-0001   LABEL,BLANK,CABLE MARKER                   EA
                                    085480-SLPF-19319-4
```

DWG NO	SH
2206536	

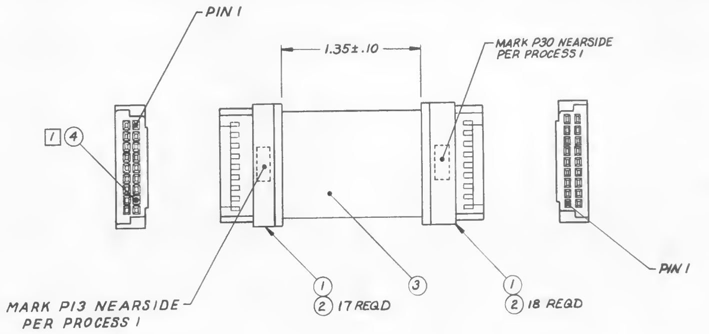
REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN 443405 8/23/79	8-23-79	D Starnes
B	CN495691 (D) M.DURHAM (1) ADDED -5001 LM (2) REVISED -0001 LM	9-9-82	S Dodson

NOTES: UNLESS OTHERWISE SPECIFIED:

1 INSTALL KEY, ITEM 4, IN P13 PIN 8

WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	SIGNATURE	ITEM NO.	REMARKS
1	CABLE, FLAT	P13- 1	P30- 9	SIG GND	3	
2	CABLE, FLAT	P13- 2	P30- 8	SIG GND	3	
3	CABLE, FLAT	P13- 3	P30- 7	+12	3	
4	CABLE, FLAT	P13- 4	P30- 6	+12	3	
5	CABLE, FLAT	P13- 5	P30- 5	N.C.	3	
6	CABLE, FLAT	P13- 6	P30- 4	N.C.	3	
7	CABLE, FLAT	P13- 7	P30- 3	N.C.	3	
8	CABLE, FLAT	P13- 8	P30- 2	N.C.	3	
9	CABLE, FLAT	P13- 9	P30- 1	CHASSIS GND	3	
10	CABLE, FLAT	P13-10	P30-18	SIG GND	3	
11	CABLE, FLAT	P13-11	P30-17	SIG GND	3	
12	CABLE, FLAT	P13-12	P30-16	+5	3	
13	CABLE, FLAT	P13-13	P30-15	+5	3	
14	CABLE, FLAT	P13-14	P30-14	N.C.	3	
15	CABLE, FLAT	P13-15	P30-13	N.C.	3	
16	CABLE, FLAT	P13-16	P30-12	N.C.	3	
17	CABLE, FLAT	P13-17	P30-11	N.C.	3	
18	CABLE, FLAT	P13-18	P30-10	CHASSIS GND	3	


PIN 1
1.35±.10
MARK P30 NEARSIDE PER PROCESS 1
1 4
PIN 1
MARK P13 NEARSIDE PER PROCESS 1
1
2 17 REQD
3
1
2 18 REQD

PART NUMBER	DESCRIPTION
2206536-5001	BULK CABLE ASSY MATERIAL FOR -0001
2206536-0001	CABLE ASSEMBLY, OPTION POWER

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999734	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± .010
  2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN DATE 6-27-79
CHK Dave Starnes 8-23-79
ENGR 8-23-79
APVD 8/23/79
QA 8/23/79
CONTR 8/23/79
RLSE 8/24/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas Texas

CABLE ASSEMBLY,
OPTION POWER

SIZE	FSCM NO	DRAWING NO
D	96214	2206536

SCALE 2/1 SHEET

SEQ NO	IDENT	F SPEC	NO	ADDITIONAL	NOTES
1	MARK	100-07	712	COLOR WHITE TYPE 9	
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

340

LM

FILMED

LIST OF MATERIALS

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02/05/83

PART NUMBER   REV       DESCRIPTION.............................
2206536-0001   B        CABLE ASSEMBLY,OPTION POWER

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0001      00002.000  0996238-0001   CONNECTOR,HOUSING,18 POSITION           EA
                                    AMP    - 1-86784-1
0001A                               P13,P30
                                    AMP    - 1-86784-1
0101      00001.000  2206536-5001   BULK CABLE ASSY MATERIAL -0001          EA
                                    1221-0536-021
```

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02/05/83

PART NUMBER   REV       DESCRIPTION.............................
2206536-5001   B        BULK CABLE ASSY MATERIAL -0001

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION........................... UM

0002      00035.000  0996236-0001   CONTACT,RCPT,.025SQ POST .000015G/P THK EA
                                    AMP    - 86565-8
0003      00000.330  0996249-0001   CABLE, ELECTRICAL 9 CONDUCTOR, FLAT     FT
                                    GOA    -B03B160/9
0004      00001.000  0996497-0001   KEYING PLUG CONNECTOR                   EA
                                    086286--1
```

DWG NO	SH
2206535	

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN444058 S Chappell	8-21-79	D. Stamm
B	CN433807(D) (1)ADDED ITEM 11, NOTE 3 AND PROCESS 2	11-9-79	SD
C	CN487121(D) D. Stamm REV PER EXT ENG CHANGES	7-22 82	

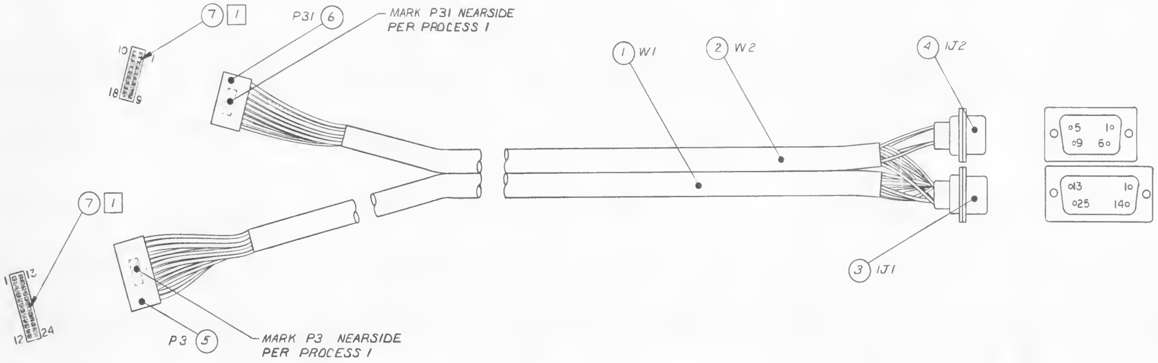
5

NOTES: UNLESS OTHERWISE SPECIFIED:

1. INSTALL KEY, ITEM 7, IN P3 PIN 19 AND IN P31 PIN 2

WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	SIGNATURE	ITEM NO.	REMARKS
1		W1 P3-1	1J1-4	RTS		
2		W1 P3-2	1J1-11	SRTS		
3		W1 P3-3	1J1-12	SRLSD		
4		W1 P3-4	1J1-6	DSR		
5		W1P3-5	1J1-22	RI		
6		W1P3-6	1J1-2	TXD		
7		W1P3-7	1J1-7	SIG GND		
8		W1P3-8	1J1-20	DTR		
9		W1P3-9	1J1-3	RCD		
10		W1P3-10	1J1-8	RLSD		
11		W1P3-11	1J1-5	CTS		
12		W1P3-12	1J1-1	SFTY GND		
13		W1P3-24	1J1-23	RS		
14		W2P31-3	1J1-9	RLSD		

WIRE NO.	DESCRIPTION	START STATION	FINISH STATION	SIGNATURE	ITEM NO.	REMARKS
15		W2P31-4	1J1-10	RI		
16		W2P31-5	1J1-13	DSR		
17		W2P31-6	1J1-14	TXD		
18		W2P31-7	1J1-16	RCD		
19		W2P31-8	1J1-17	RS		
20		W2P31-11	1J1-18	RTS		
21		W2P31-12	1J1-19	CTS		
22		W2P31-13	1J1-21	DTR		
23		W2P31-14	1J1-25	SRTS		
24		W2P31-15	1J1-24	SRLSD		
25		W2P31-1	1J2-1	TXDCURIN		
26		W2P31-10	1J2-2	TXDCURO		
27		W2P31-18	1J2-5	RXDCURIN		
28		W2P31-9	1J2-4	RXDCURO		



SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		
1	MARK	100-07	712	COLOR WHITE, TYPE 9	

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS. SEE TI DRAWING 729467

TI 7914M

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2206548	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES. ANGLES ±1°
  - 3 PLACE DECIMALS ± 010
  - 2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU .125 + .004 - 001	126 THRU 250 + 005 - 001	251 THRU 500 + 006 - 001
501 THRU 750 + 008 - .001	.751 THRU 1 000 + 010 - 001	1 001 THRU 2 000 + 012 - 001

DWN		DATE 5-25-79
CHK	D. Stamm	8-21-79
ENGR	Matt Russell	8-22-79
APVD	C. Nash	8-24-79
QA		
CONTR		
RLSE		6/28/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

CABLE ASSEMBLY,
CURRENT LOOP/EIA

SIZE	FSCM NO	DRAWING NO
D	96214	2206535

SCALE NONE SHEET

340 LM

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION.............................
2206535-0001    C         CABLE ASSEMBLY,CURRENT LOOP/EIA

ITEM.      QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001       00001.000   2206544-0001   CABLE ASSEMBLY (820 OPTIONS)-13 CONNECTO  EA
                                      1221-1544-000
0001A                                 W1
                                      1221-1544-000
0002       00001.000   2206544-0002   CABLE ASSEMBLY (820 OPTIONS)-15 CONNECTO  EA
                                      1221-2544-000
0002A                                 W2
                                      1221-2544-000
0003       00001.000   0539409-0006   CONNECTOR,RCPT 25 PINS                    EA
                                      AMP    -205207-1
0003A                                 1J1
                                      AMP    -205207-1
0004       00001.000   0539409-0002   CONNECTOR,RCPT  9 PINS                    EA
                                      AMP    -205203-1
0004A                                 1J2
                                      AMP    -205203-1
0005       00001.000   0972202-0025   CONNECTOR,.100 CENTER DUAL MINILATCH      EA
                                      BEI    - 65043-025
0005A                                 P3
                                      BEI    - 65043-025
0006       00001.000   0972202-0028   CONN,.100 CTR DUAL MINILATCH,18 CAVITIES  EA
                                             -SEE TI DWG
0006A                                 P31
                                             -SEE TI DWG
0007       00002.000   0800335-0001   KEY,POLARIZATION,CONNECTOR                EA
                                      BEI    --65307-001
0010        REF        2206731-0001   TEST PROGRAM, CURRENT LOOP/EIA CABLE      EA
```

DWG NO 2207630 SH 1

05

APPLICATION	
NEXT ASSY	USED ON
999683	8740

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN 444951 S. Stevens	8-23-79	D Stevens
B	CN460040 (C) SDodson (1) ADDED SH 2	3-18-80	SDodson
C	CN458483 (D) SDodson	4-18-80	SDodson
D	CN469191 (D) SDodson	5-23-80	J D Dodson
E	CN457257 (D) R Neuzner	7-21-80	SDodson

26

DESIGNATION

PART NUMBER 999935-0001 REFERS TO THE PROGRAMMED CONFIGURATION PROM. PART NUMBER 999935-0002 REFERS TO THE PROGRAMMED PROTECTED ABM PROM. PART NUMBER 999935-0003 REFERS TO THE PROGRAMMED PROTECTED "HERE IS" PROM.

REV STATUS OF SHEETS	REV	E	C
	SHEET	1	2

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02
- PARENTHETICAL INFO FOR REF ONLY

DWN DATE 7/24
CHK Dave Stevens 8-23-79
ENGR
APVD O. Nacke 8/24/79
QA Bradford 8/24/79
CONTR Bland 8-24-79
RLSE Louis Villa 8/24/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

INSTALLATION KIT, PROM

SIZE A FSCM NO 96214 DRAWING NO 2207630
SCALE NONE SHEET 1 OF 2

TI-23547

30

LM

6-296

PART NUMBER	DESCRIPTION
2207630-8003	KIT, PROTECTED ABM (SPECIAL)
-8002	KIT, PROTECTED ANSWERBACK OPTN
-8001	KIT, MULTIPLE CONFIGURATION OPT
-0003	PROTECTED ANSWERBACK (SPECIAL)
-0002	PROTECTED ANSWERBACK MEMORY
2207630-0001	MULTIPLE CONFIGURATION OPTION

TEXAS INSTRUMENTS
INCORPORATED
DIGITAL SYSTEMS DIVISION
HOUSTON, TEXAS

A	2207630	REV	C
	SHEET 2		

TI-4259-E

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
2207630-0001    E         MULTIPLE CONFIGUARATION OPTION

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001       REF       2207629-9701   MNL,PROC,INSTL,CONFIG PROM                EA

0002      00002.000  0999935-0001   IC, PROM, PROGRAMMED CONFIGURATION        EA
                                    1221-0010-000
0002A                               U24 U45
                                    1221-0010-000
0003      00001.000  0999931-0001   LABEL,CONFIGURATION PROM KIT              EA
                                    1221-1931-000
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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
2207630-0002    E         PROTECTED ANSWERBACK MEMORY

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001       REF       2207629-9701   MNL,PROC,INSTL,CONFIG PROM                EA

0002      00002.000  0999935-0001   IC, PROM, PROGRAMMED CONFIGURATION        EA
                                    1221-0010-000
0002A                               U24 U25
                                    1221-0010-000
0003      00001.000  0999931-0001   LABEL,CONFIGURATION PROM KIT              EA
                                    1221-1931-000
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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
2207630-0003    E         PROTECTED ANSWERBACK (SPECIAL)

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001       REF       2207629-9701   MNL,PROC,INSTL,CONFIG PROM                EA

0002      00002.000  0999935-0001   IC, PROM, PROGRAMMED CONFIGURATION        EA
                                    1221-0010-000
0002A                               U24 U45
                                    1221-0010-000
0004      00001.000  2207644-0005   PROM,PROGRAMMED,HERE IS PATCH             EA
                                    1221-0000-000
0004A                               U23
                                    1221-0000-000
0004B                               ITEM 4 IS REQUIRED FOR
                                    1221-0000-000
0004C                               THE FOLLOWING ROM SETS ONLY
                                    1221-0000-000
0004D                               820,2207625-7/8
                                    1221-0000-000
0004E                               825,2207430-1/2
                                    1221-0000-000
```

DWG NO 999734 SH

05

APPLICATION	
NEXT ASSY	USED ON
999683	8740

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN433811 8/7/79	9-5-79	D. Starnes
B	CN 436382 S. Starnes	9-5-79	D. Starnes
C	CN 444902 9/5/79	9-5-79	D. Starnes
D	CN420648 (C) SDodson (1)	4-18-80	SDodson
	-0002 WAS -8001		
E	CN477478 (C) P.Carter 4/17/81	6-25-81	SDodson
F	CN479181 (D) P. Carter 9/10/81	9-21-81	SDodson
G	CN477933 (C) PRUNYON	11-13-81	MKerack

22

PART NUMBER	DESCRIPTION
999734-0002	20MA NEUTRAL CURRENT LOOP - FIELD INSTALL
999734-0001	CURRENT LOOP INTERFACE OPTION 820/825

~~NOTE: -8001 KIT IS FOR FIELD INSTALLATION~~

REV	
SHEET	

REV STATUS OF SHEETS	
REV	G
SHEET	1

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02
- PARENTHETICAL INFO FOR REF ONLY

DWN		DATE 8/7/79
CHK	Dave Starnes	9-5-79
ENGR		9-5-79
APVD		9/5/79
QA		9/5/79
CONTR		9/5/79
RLSE		9/5/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

MODIFICATION KIT, 20ma
NEUTRAL CURRENT LOOP

SIZE	FSCM NO	DRAWING NO
A	96214	999734 FILMED

SCALE NONE SHEET 1 OF 1

TI-23547

30

LM

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV       DESCRIPTION............................
0999734-0001    G        CURRENT LOOP INTERFACE OPTION 820/825

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   2206532-0001   CURRENT LOOP                             EA
                                     1221-1532-016
0002      00001.000   2206534-0001   SHORTING PLUG, 820                       EA
                                     1221-1534-028
0003      00001.000   2206548-0001   PANEL ASSEMBLY,CURRENT LOOP/EIA          EA
                                     1221-1548-023
0004      00001.000   2206536-0001   CABLE ASSEMBLY,OPTION POWER              EA
                                     1221-1536-021
0006      00001.000   2206533-9701   INSTALLATION INST.,820 CURRENT LOOP OPT  EA
                                     1221-1533-000
0008      00001.000   0539409-0001   CONNECTOR, RACK & PANEL, PLUG, 9POS      EA

0009      00005.000   0539430-0003   CONTACT,PIN    24-20AWG .068 INSUL DIA   EA
                                     AMP    -205202-2     ST
0010      00001.000   2210305-0001   HOOD STRN RLF 45/180DEG,BULK PK 9 POS    EA
                                     000779-2-206478-0
```

DWG NO 0999836 SH

05

APPLICATION	
NEXT ASSY	USED ON
999683	8740
999685	8740
999979	8740
2207415	8740
2207408	8740

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN445640(D) SDobson	2-17-81	SDobson

22

REV		
SHEET		
REV STATUS OF SHEETS	REV	
	SHEET	

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES:
  ANGLES ±1°
  3 PLACE DECIMALS ±.010
  2 PLACE DECIMALS ±.02
- PARENTHETICAL INFO FOR REF ONLY

DWN		DATE 7/24
CHK	Dave Stasmas	7/23/79
ENGR	Dennis W Lee	7/30/79
APVD	Dennis R Gilford	7/30/79
QA	[illegible]	7/30/79
CONTR	[illegible]	7-30-79
RLSE	[illegible]	7/30/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

INSTALLATION KIT,
DEVICE/FORMS CONTROL

SIZE	FSCM NO	DRAWING NO
A	96214	0999836
SCALE NONE		SHEET

FILMED

TI-23547

30

I M

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
0599836-0001    A         DEVICE/FORMS CONTROL OPTION

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................ UM

0001      00001.000   2207626-0004   INTEGRATED CIRCUIT,4KX8 ROM,820 TERMINAL  EA

0001A                                U12

0002       REF        2207627-9701   MNL,INSTL PROC DVC/FORMS CONT             EA
```

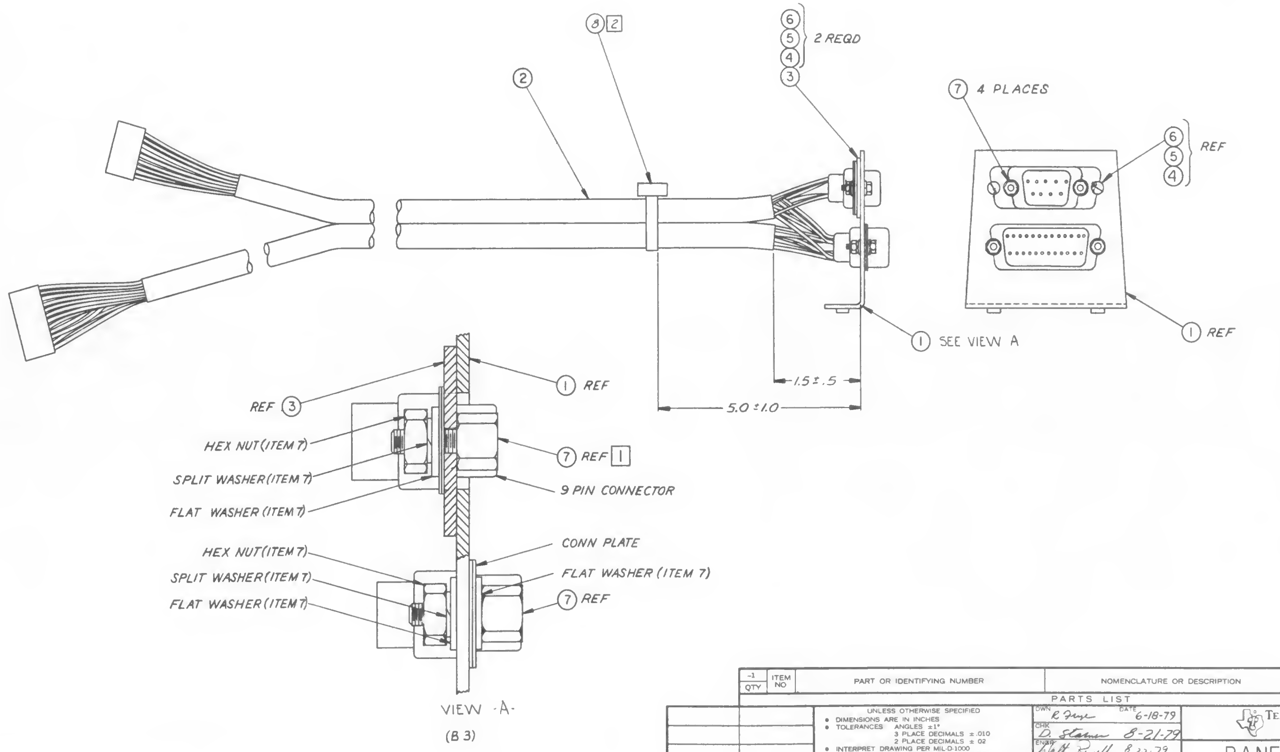
NOTES: UNLESS OTHERWISE SPECIFIED:

1. OMIT FLAT WASHER FROM ITEM 7 BETWEEN HEX SPACER & ADAPTER PANEL (ITEM 3)
2. MARK PART NUMBER AND APPROPRIATE REVISION LETTER PER PROCESS 1

DWG NO 2206548 SH

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN444055 S. Stirns	8-21-79	D. Stamm
B	CN487122 (D) D. Stamm	7-22-82	

1) ADDED NOTE 2 & PROCESS 1 2) REMOVED TWO TY WRAPS Z's B-7 & C-6 3) LM ADDED IT 8



VIEW -A-
(B 3)

1	MARK	907-01	11	HGT .109 COLOR BLACK	2
SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

TI 7914H

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999734	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

		DATE
DWN	R Frye	6-18-79
CHK	D. Stamm	8-21-79
ENGR	Walt Purcell	8-22-79
APVD	C Nash	8-23-79
QA		8/23/79
CONTR		8-22-79
RLSE		8/24/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

PANEL ASSEMBLY, CURRENT LOOP/EIA

SIZE	FSCM NO	DRAWING NO
D	96214	2206548

SCALE NONE SHEET

340 LM 1 FILMED

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
2206548-0001    B         PANEL ASSEMBLY,CURRENT LOOP/EIA

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION............................ UM

0001      00001.000  0999743-0001   PANEL, EIA CABLE                          EA
                                    1684-1743-019
0002      00001.000  2206535-0001   CABLE ASSEMBLY,CURRENT LOOP/EIA           EA
                                    1221-1535-006
0003      00001.000  0999788-0002   ADAPTER, EIA CONNECTOR PANEL (9 PIN)      EA
                                    1684-2783-008
0004      00002.000  0972988-0014   SCREW 4-40 X .312 PAN HEAD CRES           EA

0005      00002.000  0416622-0011   WASHER #4 FLAT                            EA
                                    QPL    - AN960C4L
0006      00002.000  0411104-0135   WASHER, LOCK-SPRING, HELICAL, #4          EA
                                    QPL    - MS35338-135
0007      00004.000  0808129-0001   CONNECTOR,ELECT SCREW-LOCK ASSY FEMALE    EA
                                    081349-M24308/26-1
0008      00001.000  0418201-0060   STRAP,MARKER,ADJUSTABLE,PLASTIC           EA
                                    QPL-MS-3368-1-9B
```

NOTES: UNLESS OTHERWISE SPECIFIED:

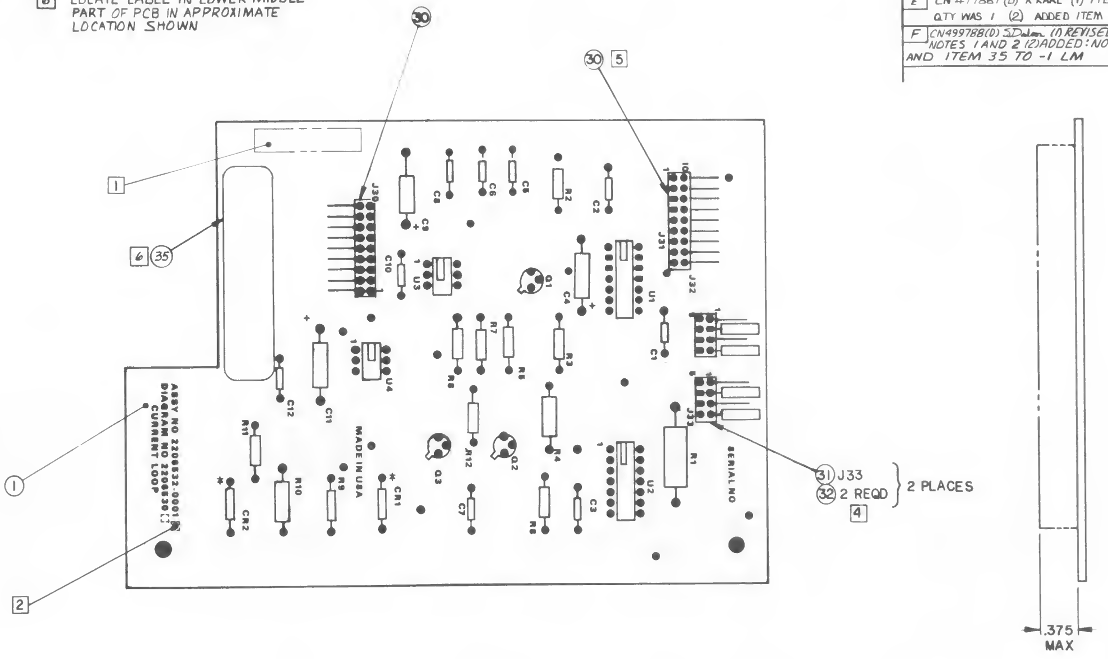
1. ALTERNATE METHOD FOR NOTE 6: MARK SITE DATE CODE ON ASSEMBLY IN POSITION INDICATED PER 994396 (ITEM 34) PARAGRAPH 4.0 USING PROCESS 1
2. ALTERNATE METHOD FOR NOTE 6: MARK APPROPRIATE REVISION LETTER PER PROCESS LETTER PER PROCESS 1
3. MAXIMUM LEAD LENGTH BELOW SURFACE OF BOARD .07
4. INSTALL JUMPER PLUGS (ITEM 32) ONTO 2 & 6 AND 4 & 8 ON BOTH J32 AND J33 FOR PASSIVE CURRENT LOOP OPERATION

[REFERANCE ONLY: FOR ACTIVE CURRENT LOOP OPTION RELOCATE JUMPER PLUGS TO PINS 1 & 5 AND 3 & 7 ON BOTH J32 AND J33]

5. REMOVE PIN 2 FROM J31 (ITEM 30) FOR MATING CONNECTOR KEY
6. LOCATE LABEL IN LOWER MIDDLE PART OF PCB IN APPROXIMATE LOCATION SHOWN

DWG NO 2206532 SH

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 433855 R Newsom 7-23-79	8-22-79	D Starnes
B	CN444952 S Stearns 8-21-79	8-22-79	D Starnes
C	CN452307(D) S Dodson (1) -1 LM: ITEM 6 WAS 0971000-0001	2-18-80	S Dodson
D	CN452358 (C) K Nguyen (1) ITEM NO. 17 QUAN. WAS 2 (2) ITEM NO. 33 QUAN WAS 1	4-14-80	S Dodson
E	CN 477887 (D) R KARL (1) ITEM 10 QTY WAS 1 (2) ADDED ITEM 11	6-30-81	D Owens
F	CN499788(D) S Dodson (1) REVISED NOTES 1 AND 2 (2) ADDED: NOTE 6 AND ITEM 35 TO -1 LM	11-8-82	S Dodson



PART NUMBER	DESCRIPTION
2206532-8001	CURRENT LOOP
2206532-0001	CURRENT LOOP

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999734	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN JBLancaster DATE 3-23-79

CHK D Starnes 8-22-79

ENGR KMcKinney 8-24-79

C Neske 8/24/79

QA J Bradford 8/24/79

CONTR [illegible] Lynn Burch

RLSE Louis Villa 8/24/79

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas

CURRENT LOOP

SIZE D FSCM NO 96214 DRAWING NO 2206532

2/1

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
2	SLDR	124-02	00	HEIGHT: .06, COLOR: BLACK	1 2
1	MARK	100-02	21		
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

320

1 LM

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION..............................
2206532-0001    F         CURRENT LOOP

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION............................. UM

0001      00001.000   2206531-0001   PWB, CURRENT LOOP                            EA

0002       REF        2206530-0001   DIAGRAM, LOGIC, CURRENT LOOP                 EA

0003      00001.000   0996015-0001   IC,QUAD LINE DRIVERS SN75188N                EA
                                     TI     -SN75188N
0003A                                U1
                                     TI     -SN75188N
0004      00001.000   0972450-0002   NETWORK,SN75189AN/MC1489AL QUAD LINE RCR     EA
                                     SEE    - TI DRAWING
0004A                                U2
                                     SEE    - TI DRAWING
0006      00001.000   0971000-0004   IC TIL-117 OPTICALLY COUPLED ISOLATOR        EA

0006A                                U3
                                     TI     -TIL111
0007      00001.000   0972625-0001   NETWORK OCI449 OPTICALLY COUPLED             EA
                                     TI     -OCI449
0007A                                U4
                                     TI     -OCI449
0009      00002.000   0972057-0001   TRANSISTOR-A5T2222 NPN SILICON               EA
                                     1640-2132-000
0009A                                Q1,Q2
                                     1640-2132-000
0010      00000.000   0772637-0006   TRANSISTOR,TIS99                             EA
                                     TI-    -TIS99
0010A                                Q3 MAY BE SUBS BY ITEM 11
                                     TI-    -TIS99
0011      00001.000   2220095-0001   TRANSISTOR, NPN, GENERAL PURPOSE             EA
                                     SEE TI- DRAWING
0011A                                Q3
                                     SEE TI- DRAWING
0012      00001.000   0539468-0003   DIODE,1N4003 1AMP  200PIV RECTIFIER          EA
                                     TI     - IN4003
0012A                                CR1
                                     TI     - IN4003
0013      00001.000   0972934-0006   DIODE,1N751A  5.1 V 5% SIL VOLT REG          EA
                                     QPL    - 1N751A
0013A                                CR2
                                     QPL    - 1N751A
0014      00001.000   0972946-0041   RES FIX 100   OHM 5 % .25 W CARBON FILM      EA
                                     ROH    - R-25
0014A                                R8
                                     ROH    - R-25
0015      00002.000   0972946-0045   RES FIX 150   OHM 5 % .25 W CARBON FILM      EA
                                     SEE TI- DRAWING
0015A                                R2, R11
                                     SEE TI- DRAWING
0016      00001.000   0972946-0050   RES FIX 240   OHM 5 % .25 W CARBON FILM      EA
                                     ROH    - R-25
0016A                                R3
                                     ROH    - R-25
0017      00001.000   0972946-0065   RES FIX 1.0K OHM 5% .25 W CARBON FILM        EA
                                     ROH    - R-25
0017A                                R6
                                     ROH    - R-25
0021      00001.000   0972947-0037   RES FIX 68    OHM 5% .5 W CARBON FILM        EA
                                     ROH    - R-50
0021A                                R10
                                     ROH    - R-50
```

LIST OF MATERIALS

02/05/83

PART NUMBER	REV	DESCRIPTION...........................
2206532-0001	F	CURRENT LOOP

ITEM.	QUANTITY.	COMPONENT..	DESCRIPTION...........................	UM
0022	00001.000	0972947-0041	RES FIX 100 OHM 5% .5 W CARBON FILM ROH - R-50	EA
0022A			R4 ROH - R-50	
0024	00001.000	0972978-0083	RES FIX COMP 1.0 W 180 OHMS 5 % QPL -RC32G181JS	EA
0024A			R1 QPL -RC32G181JS	
0025	00002.000	0972946-0137	RES FIX 1.0M OHM 5 % .25 W CARBON FILM ROH - R-25	EA
0025A			R7, R12 ROH - R-25	
0026	00008.000	0972763-0021	CAP.,FIXED,AXIAL LEAD,.047 UF,+80%,-20% 1632-0000-000	EA
0026A			C1,C2,C3,C5,C6,C7,C8,C10 1632-0000-000	
0027	00003.000	0972924-0014	CAP FIX TANT SOLID 15 UFD 10% 20 VOLT QPL -M39003/1-2289	EA
0027A			C4,C9,C11 QPL -M39003/1-2289	
0028	00001.000	0410529-0203	CAP FIX CERAMIC .02UF +80%-20% 600 V CRL - DD203	EA
0028A			C12 CRL - DD203	
0030	00002.000	2210451-0003	HEADER, RIGHT ANGLE, DOUBLE ROW, 18 POS 000779-SEE TI DWG	EA
0030A			J30,J31 000779-SEE TI DWG	
0031	00002.000	2210451-0002	HEADER, RIGHT ANGLE, DOUBLE ROW, 8 POS 000779-SEE TI DWG	EA
0031A			J32,J33 000779-SEE TI DWG	
0032	00004.000	0972487-0001	JUMPER PLUG,CONNECTOR BLACK 5935-0900-000	EA
0033	00002.000	0972946-0057	RES FIX 470 OHM 5 % .25 W CARBON FILM ROH - R-25	EA
0033A			R5 R9 ROH - R-25	
0034	REF	0994396-9901	PROCEDURE,SITE & DATE CODE SERIALIZATION	EA
0035	00001.000	2363830-0002	LABEL,SYMBOLIZATION (51MM X 13MM)	EA

NOTES, UNLESS OTHERWISE SPECIFIED:

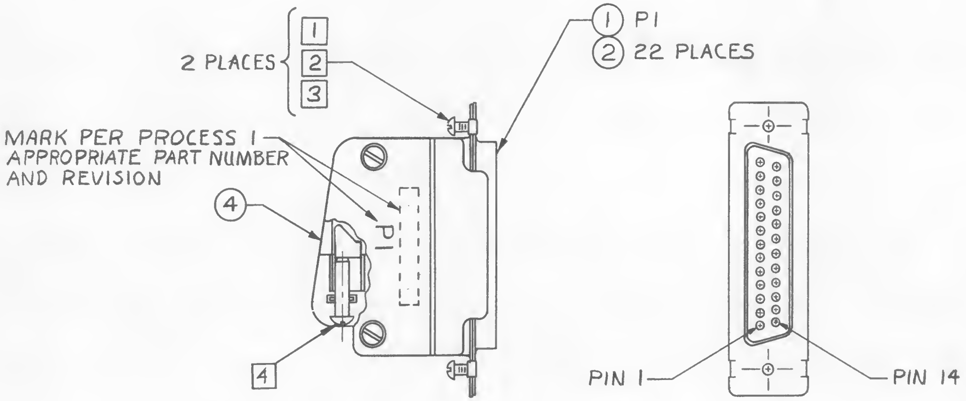
1. CABLE CLAMP SCREWS AND RETAINER CLIPS AND SCREWS INCLUDED WITH (ITEM 4)
2. RETAINER CLIP INSTALLED WITH THREADED HOLE ON SAME SIDE AS SCREW HEAD
3. SCREWS MUST BE THREADED COMPLETELY THRU RETAINER CLIPS
4. CABLE CLAMP HARDWARE (SET SCREW, NUT, PLASTIC BLOCK) NEED NOT BE INSTALLED.

WIRE NO	DESCRIPTION	START STATION	FINISH STATION	SIGNATURE	ITEM NO	REMARKS
1	22 AWG IPVC WHT	P1-4	P1-18	RTS	3	
2	↑	↑ -11	↑ -25	SRTS	↑	
3		-12	24	SRLSD		
4		-6	13	DSR		
5		-22	10	RI		
6		-2	14	TXD		
7		-20	21	DTR		
8		-3	16	RCD		
9		-8	9	RLSD		
10	↓	↓ -5	↓ 19	CTS	↓	
11	22 AWG IPVC WHT	P1-23	P1-17	RS	3	

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	UPDATED LM AND DWG FORMAL RELEASE	8-7-79	CAR
B	CN 458481 (D) K. Nguyen (1) ADDED NOTE 4	5-5-80	
C	CN495690 (D) M.DURHAM (1) CREATED DASH NO. 5001 (2) ON -0001 LM DELETED ITEMS 2 & 3 (3) ADDED ITEM 101 TO -0001 LM	9-9-82	
D	CN497539 (E) M.DURHAM (1) ON -0001 LM ITEM 4 WAS 0539903-0001 (2) ON-0001 LM DELETED ITEM 5	9-9-82	

26



PART NUMBER	DESCRIPTION
2206534-5001	BULK CABLE ASSY MATERIAL FOR -0001
2206534-0001	SHORTING PLUG, 820

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999734	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1° 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN P. McCormick DATE 4-2-79
CHK D. Stevens 8-15-79
ENGR Walt Russell 8-22-79
APVD E. Naske 8/24/79
QA Bradford 8/22/79
CONTR 8-22-79
RLSE 9/4/79

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas

SHORTING PLUG, 820

SIZE C FSCM NO 96214 DRAWING NO 2206534

SCALE NONE SHEET

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
1	MARK	100-07	12	COLOR WHT. TYPE 9	
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

DWG NO 2206534 SH

E I S

LM 1

300

FILMED

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION............................
2206534-0001    D         SHORTING PLUG, 820

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM

0001      00001.000  0539409-0005   CONNECTOR,PLUG 25 PINS                    EA
                                    AMP    -205208-1
0001A                               P1
                                    AMP    -205208-1
0004      00001.000  2210305-0003   HOOD STRN RLF 45/180DEG,BULK PK 25 POS    EA
                                    SEE TI- DRAWING
0101      00001.000  2206534-5001   BULK CABLE ASSY MATERIAL FOR -0001        EA
                                    1221-0534-028
```

```
03/16/83

PART NUMBER    REV        DESCRIPTION............................
2206534-5001    D         BULK CABLE ASSY MATERIAL FOR -0001

ITEM.     QUANTITY.   COMPONENT..  DESCRIPTION.......................... UM
0002      00022.000  0539430-0003   CONTACT,PIN     24-20AWG .068 INSUL DIA   EA

                                    AMP    -205202-2     ST
0003      00003.000  2210012-3999   WIRE,WHT,UL 1429, 19X34, 22AWG            FT
                                    090484-XV81934U9P
```

DWG NO 2217360 SH 1

APPLICATION	
NEXT ASSY	USED ON
2217357	8740

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN 482352 (E) L. MOLINA	2-2-82	
B	CN 492335 (D) L. MOLINA	2-2-82	
C	CN 488142 (D) J. A. ROY	2-2-82	

FORMAL RELEASE

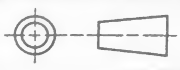
22

REV		
SHEET		
REV STATUS OF SHEETS	REV	C
	SHEET	1

UNLESS OTHERWISE SPECIFIED

- DIMENSIONS ARE IN MILLIMETERS
- TOLERANCES: ANGLE ± 1°, 1 PLACE DECIMALS ± 0.5, 2 PLACE DECIMALS ± 0.25
- PARENTHETICAL INFO FOR REF ONLY

THIRD ANGLE PROJECTION



DWN J. A. ROY DATE 2/1/82
CHK 2/1/82
ENGR 2/1/82
APVD-ENGR 2/1/82
QA C Bradford 2/1/82
APVD-MFG 2/1/82
RLSE 2/2/82

TEXAS INSTRUMENTS
INCORPORATED
Digital Systems Group

SI-METRIC

CURRENT LOOP OPTION 820/825

SIZE A
FSCM NO 06668
DRAWING NO 2217360
SCALE NONE
SHEET 1 OF 1

TI-25739

300

LM

FILMED

LIST OF MATERIALS

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02/05/83

PART NUMBER    REV        DESCRIPTION............................
2217360-0001    C         CURRENT LOOP OPTION 820/825

ITEM.     QUANTITY.    COMPONENT..   DESCRIPTION...........................  UM

0001      00001.000   2217357-0001   CURRENT LOOP INTERFACE 820/825           EA
                                     1221-1357-011
0002      00001.000   2206534-0001   SHORTING PLUG, 820                       EA
                                     1221-1534-028
0003      00001.000   2206548-0001   PANEL ASSEMBLY,CURRENT LOOP/EIA          EA
                                     1221-1548-023
0004      00001.000   2206536-0001   CABLE ASSEMBLY,OPTION POWER              EA
                                     1221-1536-021
0005      00001.000   0539409-0001   CONNECTOR, RACK & PANEL, PLUG, 9POS      EA

0006      00005.000   0539430-0003   CONTACT,PIN     24-20AWG .068 INSUL DIA  EA
                                     AMP    -205202-2     ST
0007      00001.000   2210305-0001   HOOD STRN RLF 45/180DEG,BULK PK 9 POS    EA
                                     000779-2-206478-0
0008       REF        2217361-9701   INSTALLATION INST 820/825 CURRENT LOOP   EA
```

DWG NO	SH
2217357	1

NOTES: UNLESS OTHERWISE SPECIFIED:

1 MAXIMUM COMPONENT HEIGHT ABOVE BOARD SHALL BE 10.0

2 MAXIMUM LEAD LENGTH BELOW BOARD SHALL BE 1.7

3. ASSEMBLY WORK SHALL COMPLY WITH DSG WORKMANSHIP AND QUALITY STANDARDS

4 MARK SITE DATE CODE IN LOCATION INDICATED PER PROCESS 1 AND ITEM 30 PER PARAGRAPH 4.0

5 MARK ASSEMBLY AND DIAGRAM REVISION LEVEL PER PROCESS 1.

6 REMOVE PIN 2 FROM J31 FOR MATING CONNECTOR KEY

7 INSTALL JUMPER PLUGS (ITEM 29) ON PINS 2 AND 6 AND PINS 4 AND 8 OF J32 FOR PASSIVE RECEIVER OPERATION. [REFERENCE ONLY: FOR ACTIVE RECEIVER OPERATION INSTALL JUMPERS ON PINS 1 AND 5 AND PINS 3 AND 7 OF J32]

8 INSTALL JUMPER PLUGS (ITEM 29) ON PINS 1 AND 5 AND PINS 3 AND 7 OF J33 FOR TRANSMITTER CONTROLLED BY TRANSMITTED DATA. [REFERENCE ONLY: FOR TRANSMITTER CONTROLLED BY TRANSMITTED DATA AND DATA TERMINAL READY, INSTALL JUMPERS ON PINS 1 AND 5 AND PINS 4 AND 8 OF J33. FOR TRANSMITTER CONTROLLED BY SECONDARY REQUEST TO SEND, INSTALL JUMPERS ON PINS 2 AN 6 AND PINS 3 AND 7 OF J33.]

9 INSTALL JUMPER PLUGS (ITEM 29) ON PINS 2 AND 6 AND PINS 4 AND 8 OF J34 FOR PASSIVE TRANSMITTER OPERATION. [REFERENCE ONLY: FOR ACTIVE TRANSMITTER OPERATION INSTALL JUMPERS ON PINS 1 AND 5 AND PINS 3 AND 7 OF J34.]

10 INSTALL JUMPER PLUG (ITEM 29) ON PINS 1 AND 5 OF J35 FOR TRANSMITTER OPENED WHEN POWER IS OFF. [REFERENCE ONLY: INSTALL JUMPER ON PINS 2 AND 6 OF J35 FOR TRANSMITTER CLOSED WHEN POWER IS OFF.]

11. CAUTION: THIS ASSEMBLY AND CERTAIN COMPONENTS ARE SUSCEPTABLE TO DAMAGE FROM ELECTROSTATIC DISCHARGE. OPERATOR AND EQUIPMENT GROUNDING AND PROTECTIVE PACKAGING IS REQUIRED. STATIC SENSITIVE COMPONENTS ARE: U1, U2, U3 AND U4

12 THE BODY OF CAPACITOR C9 (ITEM 26) MUST BE BENT FLAT TO THE BOARD TO MEET THE REQUIREMENT OF NOTE 1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN 482311 GHampton CHG TITLE ON LM	8/20/81	A. Vaegas
B	CN 478699 GHampton LM UPDATE	8/20/81	A. Vaegas
C	CN492905 (D) A Vaegas LM UPDATE	08/20/81	
D	CN 502050 (D) PRUNYON (1) REV PER EXT ENG CHANGES	4-8-82	MKenek
E	CN500820 (D) DHoward (1) ON -5001 LM: REV PER EXT ENGR CHNGS (2) CREATED A -5501 LM	7-13-82	MKenek

CONVERSION CHART

mm	INCHES
0.25	.010
0.5	.02
1.5	.06
1.7	.07
10.0	.40

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL
2	SLDR	124-02	00	WAVE SOLDER
1	MARK	902-01	01	HGT 1.5, CLR BLK (CAT 5)

PROCESS — CLASSIFICATION — NOTES 4 5

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

REVISION LEVEL STATUS							
ASSEMBLY	2217357-0001	A	B	C	D	E
DIAGRAM	2217359-0001	*	*	A	A	A
PWB	2217358-0001	*	*	A	B	B

REV STATUS OF SHEETS		
REV	E	D
SH	1	2

-3 QTY	-2 QTY	-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2217360	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN MILLIMETERS
- TOLERANCES 2 PLACE DECIMALS ±0.25 1 PLACE DECIMALS ±0.5 ANGLES ±1°
- INTERPRET DRAWING PER DOD-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 0.25 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

0.33 THRU 3.18	+0.10/-0.03
3.20 THRU 6.35	+0.13/-0.03
6.38 THRU 12.70	+0.15/-0.03
12.73 THRU 19.05	+0.20/-0.03
19.08 THRU 25.40	+0.25/-0.03
25.43 THRU 50.80	+0.30/-0.03

THIRD ANGLE PROJECTION

DWN		3 August 81
CHK		20 Aug 81
ENGR		8/20/81
APVD-ENGR		8/20/81
QA		8/20/81
APVD MFG		8-21-81
RLSE		8/21/81

TEXAS INSTRUMENTS
INCORPORATED
Digital Systems Group

SI-METRIC

CURRENT LOOP
INTERFACE 820/825

SIZE	FSCM NO	DRAWING NO
D	06668	2217357

SCALE 1:1 SHEET 1 OF 2

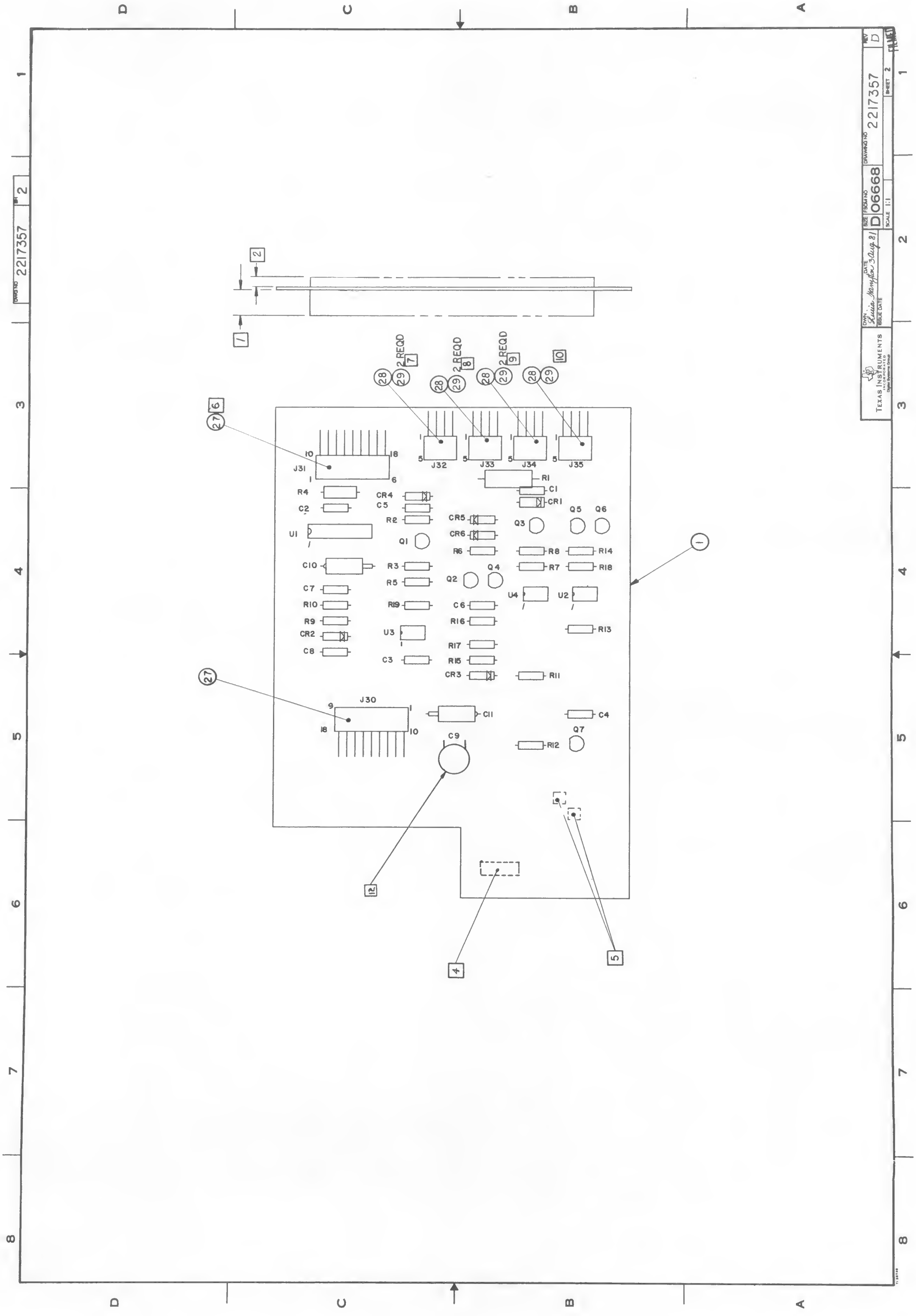
FILMED

300

LM

E
I
S

22


DWG NO 2217357 SH 2
TEXAS INSTRUMENTS
INCORPORATED
Digital Systems Group
DWN Lucia Hampton
DATE 3 Aug 81
ISSUE DATE
SIZE D
FSCM NO 06668
DRAWING NO 2217357
REV D
SCALE 1:1
SHEET 2
FILMED
2
1
2 REQD
7
2 REQD
8
2 REQD
9
10
28
29
27
6
27
J31
J30
J32
J33
J34
J35
R1
C1
CR1
R4
CR4
C5
C2
R2
CR5
CR6
Q3
Q5
Q6
U1
Q1
R6
R8
R14
R7
R18
C10
R3
R5
Q2
Q4
U4
U2
C7
R10
R19
C6
R9
R16
R13
CR2
U3
C8
R17
C3
R15
CR3
R11
C11
C4
C9
Q7
R12
12
4
5
1

LIST OF MATERIALS

```
02/05/83

PART NUMBER    REV        DESCRIPTION..............................
2217357-0001    E         CURRENT LOOP INTERFACE 820/825

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION.............................. UM

0002       REF        2217359-0001   DIAGRAM, LOGIC, CURRENT LOOP                  EA

0003      00001.000   0996015-0001   IC,QUAD LINE DRIVERS SN75188N                 EA
                                     TI    -SN75188N
0003A                                U1
                                     TI    -SN75188N
0004      00002.000   0971000-0004   IC TIL-117 OPTICALLY COUPLED ISOLATOR         EA

0004A                                U2,U3

0005      00001.000   0972625-0001   NETWORK 0CI449 OPTICALLY COUPLED              EA
                                     TI    -0CI449
0005A                                U4
                                     TI    -0CI449
0007      00004.000   2211415-0001   TRANSISTOR NPN                                EA

0007A                                Q1, Q2, Q4, Q7

0008      00001.000   2211416-0002   TRANSISTOR,A8T2907A, PNP                      EA
                                     SEE TI- DRAWING
0008A                                Q6
                                     SEE TI- DRAWING
0023      00001.000   0972978-0093   RES FIX COMP 1.0 W 180   OHMS 5 %             EA
                                     QPL   -RC32G181JS
0023A                                R1
                                     QPL   -RC32G181JS
0026      00001.000   0410529-0203   CAP FIX CERAMIC .02UF +80%-20% 600 V          EA
                                     CRL   - DD203
0026A                                C9
                                     CRL   - DD203
0027      00002.000   2210451-0003   HEADER, RIGHT ANGLE, DOUBLE ROW, 18 POS       EA
                                     000779-SEE TI DWG
0027A                                J30,J31
                                     000779-SEE TI DWG
0028      00004.000   2210451-0002   HEADER, RIGHT ANGLE, DOUBLE ROW, 8 POS        EA
                                     000779-SEE TI DWG
0028A                                J32,J33,J34,J35
                                     000779-SEE TI DWG
0029      00007.000   0972487-0001   JUMPER PLUG,CONNECTOR BLACK                   EA
                                     5935-0900-000
0030       REF        0994396-0001   PROC., SITE/DATE CODE AND SERIALIZATION       EA

0031      00002.000   2210224-0001   XSTR,N-P-N,HIGH VOLTAGE                       EA
                                     001295-2N4410
0031A                                Q3,Q5
                                     001295-2N4410
0032      00001.000   2217357-5001   CUR,LOOP INTFC 820/825,AUTO&AXIAL INSRD       EA
                                     1221-5357-012
```

```
03/16/83

PART NUMBER    REV        DESCRIPTION..............................
2217357-5001    E         CUR,LOOP INTFC 820/825,AUTO&AXIAL INSRD

ITEM.     QUANTITY.    COMPONENT..  DESCRIPTION.............................. UM

0001      00001.000   2217358-0001   PWB,CURRENT LOOP                              EA

0002      00001.000   2217357-5501   SEQUENCE TAPE FOR 2217357-5001                EA
                                     1221-7357-011
```

Section 7

Schematics and Logic Diagrams

This section contains logic diagrams and electronic schematics for the Model 820/825 KSR and RO Terminal major assemblies.

Drawing No.	Title	Page No.
999710G	Schematic for KSR Keyboard 999712	7-3
999945W	Schematic for Terminal Electronics 999947	7-5
999951B	Schematic for RO Operator Panel 999953	7-19
2206530C	Schematic for Current-Loop Electronics 2206532	7-21
2207416	Interconnection Diagram, 820/825	7-23
2207411L	Schematic for Terminal Electronics 2207413 (Model 825)	7-25
2217359	Schematic for Current-Loop Electronics 2217357	7-39
2208267F	Schematic for Terminal Electronics 2208265	7-41

DWG NO	SH
999710	1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
E	CN445413 R. Whist	1/3/79	
F	CN433665(C) P. Sandberg 01-29-80	1/29/80	
G	CN506218(D) M Kuehn	12/6/82	

6

NOTES: UNLESS OTHERWISE SPECIFIED:

1. ALL RESISTORS ARE .25 WATT, 5 PCT
2. R10 THROUGH R16 ARE 220 OHMS
3. C2 THROUGH C6 ARE +80/-20 PCT

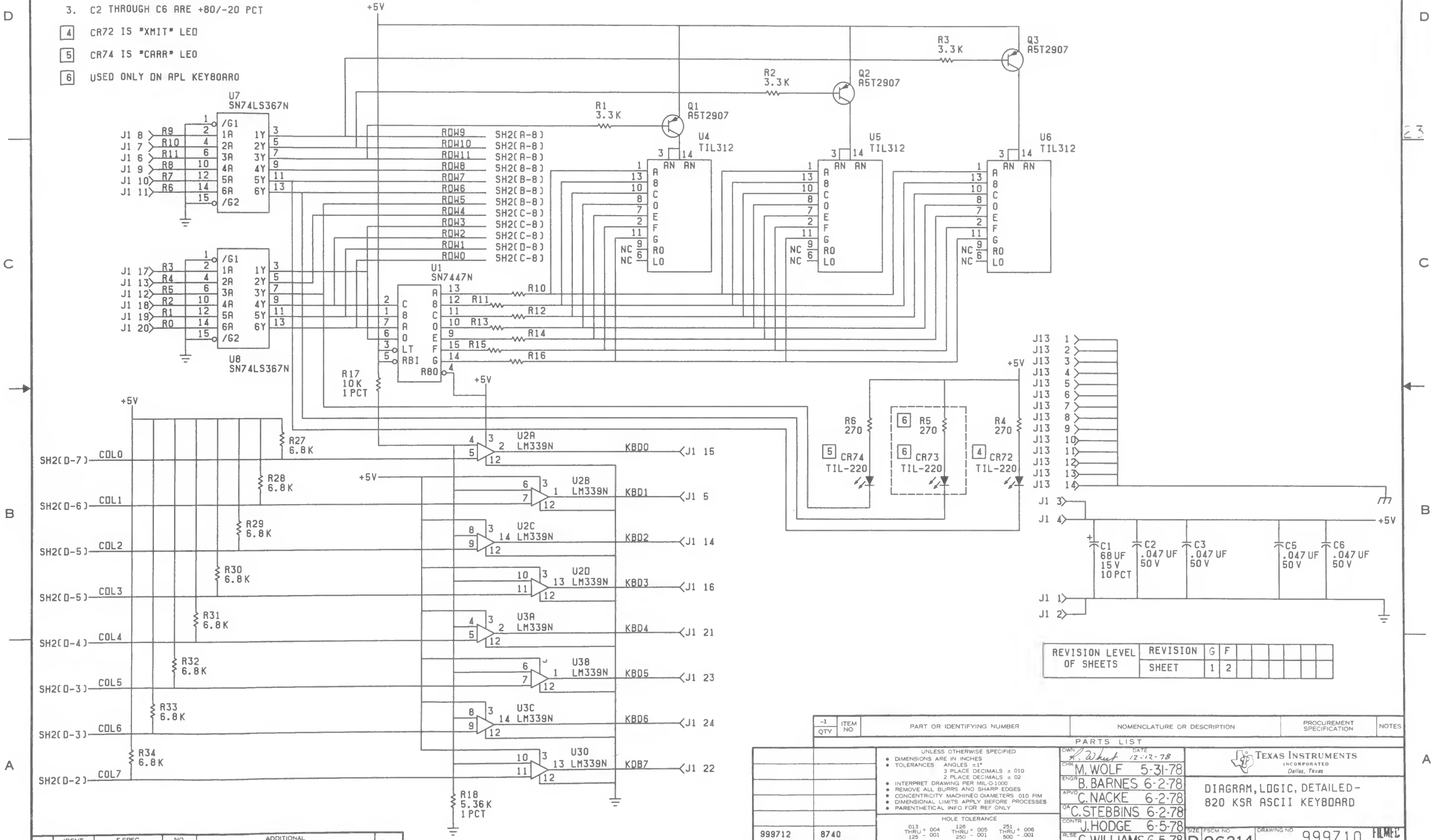
4 CR72 IS "XMIT" LED

5 CR74 IS "CARR" LED

6 USED ONLY ON APL KEYBOARD

7 USED ONLY ON NUMERIC CLUSTER OPTIONS

8 RESERVED FOR FUTURE EXPANSION



REVISION LEVEL OF SHEETS	REVISION	G	F
	SHEET	1	2

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999712	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU 125 +004 -001	126 THRU 250 +005 -001	251 THRU 500 +006 -.001
501 THRU 750 +008 -001	751 THRU 1 000 +010 -001	1 001 THRU 2 000 +.012 -001

		DATE
DWN	R. Whist	12-12-78
CHK	M. WOLF	5-31-78
ENGR	B. BARNES	6-2-78
APVD	C. NACKE	6-2-78
QA	C. STEBBINS	6-2-78
CONTR	J. HODGE	6-5-78
RLSE	C. WILLIAMS	6-5-78

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

DIAGRAM, LOGIC, DETAILED-
820 KSR ASCII KEYBOARD

SIZE D FSCM NO 96214 DRAWING NO 999710 FILMED

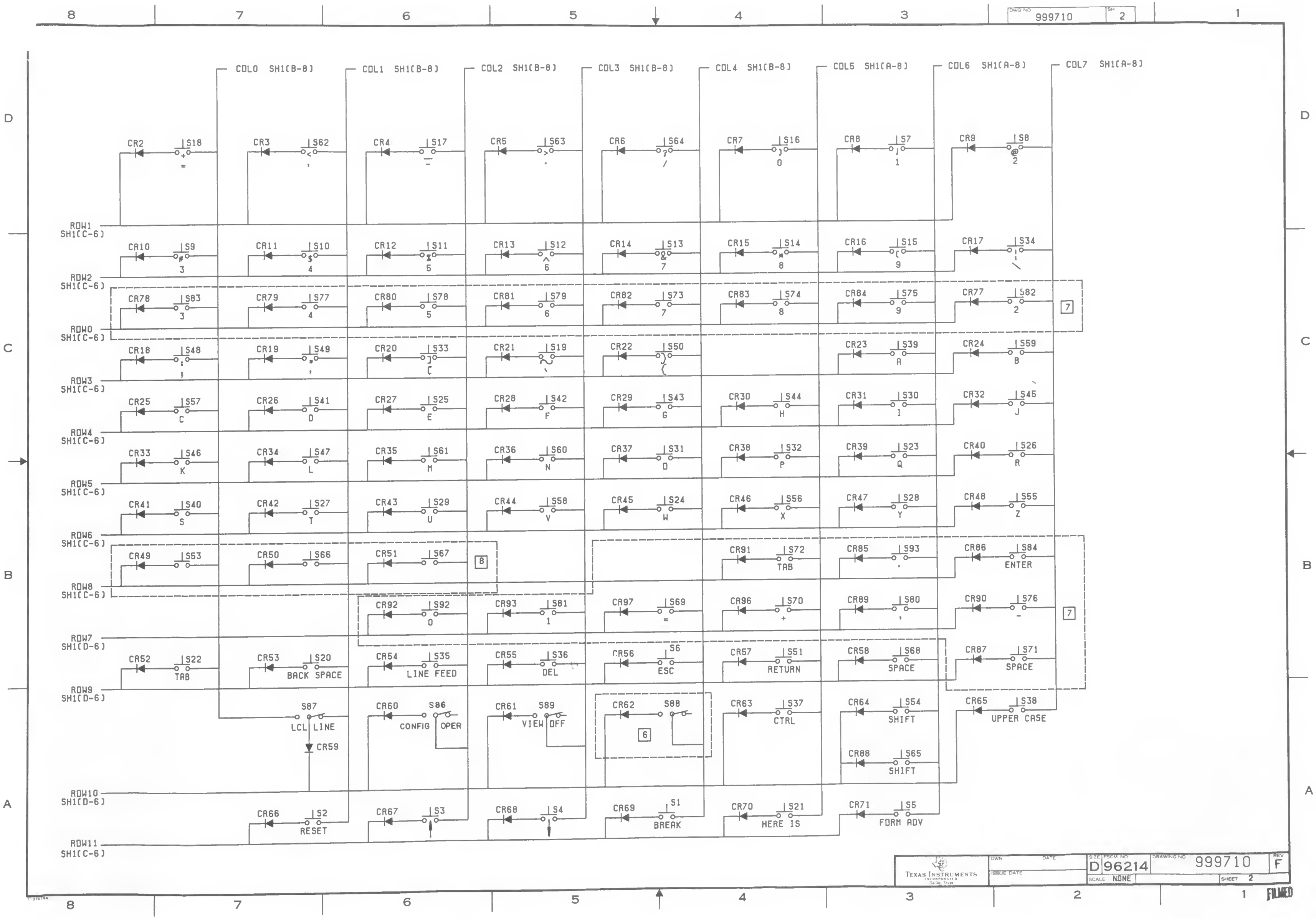
SCALE NONE SHEET 1 OF 2

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS. SEE TI DRAWING 729467

430

(H-MT)

DWG NO 999710 SH 2
COL0 SH1(B-8)
COL1 SH1(B-8)
COL2 SH1(B-8)
COL3 SH1(B-8)
COL4 SH1(B-8)
COL5 SH1(A-8)
COL6 SH1(A-8)
COL7 SH1(A-8)
ROW1 SH1(C-6)
ROW2 SH1(C-6)
ROW0 SH1(C-6)
ROW3 SH1(C-6)
ROW4 SH1(C-6)
ROW5 SH1(C-6)
ROW6 SH1(C-6)
ROW8 SH1(C-6)
ROW7 SH1(D-6)
ROW9 SH1(D-6)
ROW10 SH1(D-6)
ROW11 SH1(C-6)
CR2 S18 + =
CR3 S62 < ,
CR4 S17 _ -
CR5 S63 > .
CR6 S64 ? /
CR7 S16) 0
CR8 S7 ! 1
CR9 S8 @ 2
CR10 S9 # 3
CR11 S10 $ 4
CR12 S11 % 5
CR13 S12 ^ 6
CR14 S13 & 7
CR15 S14 * 8
CR16 S15 (9
CR17 S34 | \
CR78 S83 3
CR79 S77 4
CR80 S78 5
CR81 S79 6
CR82 S73 7
CR83 S74 8
CR84 S75 9
CR77 S82 2
7
CR18 S48 : ;
CR19 S49 " '
CR20 S33] [
CR21 S19 ~ `
CR22 S50 } {
CR23 S39 A
CR24 S59 B
CR25 S57 C
CR26 S41 D
CR27 S25 E
CR28 S42 F
CR29 S43 G
CR30 S44 H
CR31 S30 I
CR32 S45 J
CR33 S46 K
CR34 S47 L
CR35 S61 M
CR36 S60 N
CR37 S31 O
CR38 S32 P
CR39 S23 Q
CR40 S26 R
CR41 S40 S
CR42 S27 T
CR43 S29 U
CR44 S58 V
CR45 S24 W
CR46 S56 X
CR47 S28 Y
CR48 S55 Z
CR49 S53
CR50 S66
CR51 S67
8
CR91 S72 TAB
CR85 S93 .
CR86 S84 ENTER
CR92 S92 0
CR93 S81 1
CR97 S69 =
CR96 S70 +
CR89 S80 ,
CR90 S76 -
7
CR52 S22 TAB
CR53 S20 BACK SPACE
CR54 S35 LINE FEED
CR55 S36 DEL
CR56 S6 ESC
CR57 S51 RETURN
CR58 S68 SPACE
CR87 S71 SPACE
S87 LCL LINE
CR59
CR60 S86 CONFIG OPER
CR61 S89 VIEW OFF
CR62 S88
6
CR63 S37 CTRL
CR64 S54 SHIFT
CR65 S38 UPPER CASE
CR88 S65 SHIFT
CR66 S2 RESET
CR67 S3 ↑
CR68 S4 ↓
CR69 S1 BREAK
CR70 S21 HERE IS
CR71 S5 FORM ADV
8 7 6 5 4 3 2 1
D C B A
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN DATE
ISSUE DATE
SIZE D FSCM NO 96214
DRAWING NO 999710
REV F
SCALE NONE
SHEET 2
FILMED

NOTES: UNLESS OTHERWISE SPECIFIED:
1. RESISTANCE VALUES ARE IN OHMS
2. RESISTORS ARE ,.25 W, 5 PCT
3. CAPACITORS ARE ,+80-20 PCT
4. DIODES ARE 1N4002
5. FOR POWER AND GROUND PINS SEE TABLE ON SHEET 11

PROCESSOR SECTION REFERENCE DESIGNATORS		
FIRST USED	LAST USED	UNUSED
E1	E29	
R1	R37	
C1	C23	
CR1	CR3	
Q1	Q6	
U1	U45	U14

PRIMARY PWR SUPPLY REFERENCE DESIGNATORS		
FIRST USED	LAST USED	UNUSED
E250	E286	E270, E272 - E280, E283, E284
R250	R275	R268,R29,R271
C250	C264	C260,C261,C263
CR250	CR266	CR262
Q250	Q255	

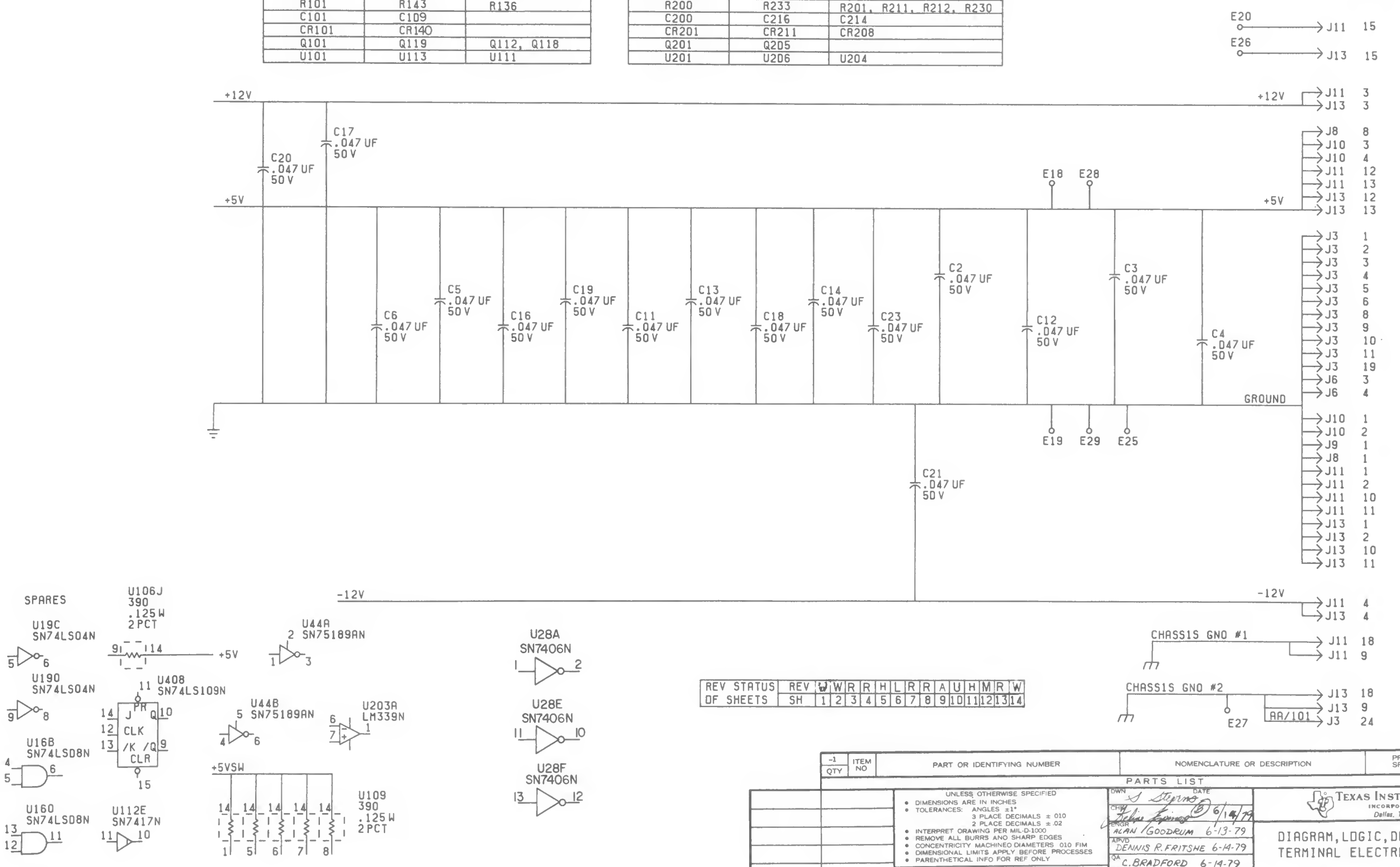
DRIVER REFERENCE DESIGNATORS		
FIRST USED	LAST USED	UNUSED
E101	E117	E105 - E111
R101	R143	R136
C101	C109	
CR101	CR140	
Q101	Q119	Q112, Q118
U101	U113	U111

SECONDARY PWR SUPPLY REFERENCE DESIGNATION		
FIRST USED	LAST USED	UNUSED
E200	E235	E217, E218, E224 - E226
R200	R233	R201, R211, R212, R230
C200	C216	C214
CR201	CR211	CR208
Q201	Q205	
U201	U206	U204

DWG NO 999945 SH 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
C	CN 433475 S. Sterns	8/21/79	
D	CN433476	8/30/79	
E	CN433477	8/30/79	
F	CN439035 S. Sterns	9/11/79	D. Stayner
G	CN434008 P. Landry	3/13/80	
H	CN455636 P. Landry	3/13/80	
J	CN454982(D) S.Dodson	5-1-80	S. Dodson

REVISIONS CONTINUED SHEET 2



REV STATUS OF SHEETS	REV	W	W	R	R	H	L	R	R	A	U	H	M	R	W
	SH	1	2	3	4	5	6	7	8	9	10	11	12	13	14

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
999947	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1° 3 PLACE DECIMALS ± .010 2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN S. Sterns DATE
CHK Felipe Espinoza 6/14/79
ENGR ALAN GOODRUM 6-13-79
APVD DENNIS R. FRITSHE 6-14-79
QA C. BRADFORD 6-14-79
CONTR S. KOENIG 6-14-79
RLSE 6/14/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

DIAGRAM, LOGIC, DETAILED
TERMINAL ELECTRONICS

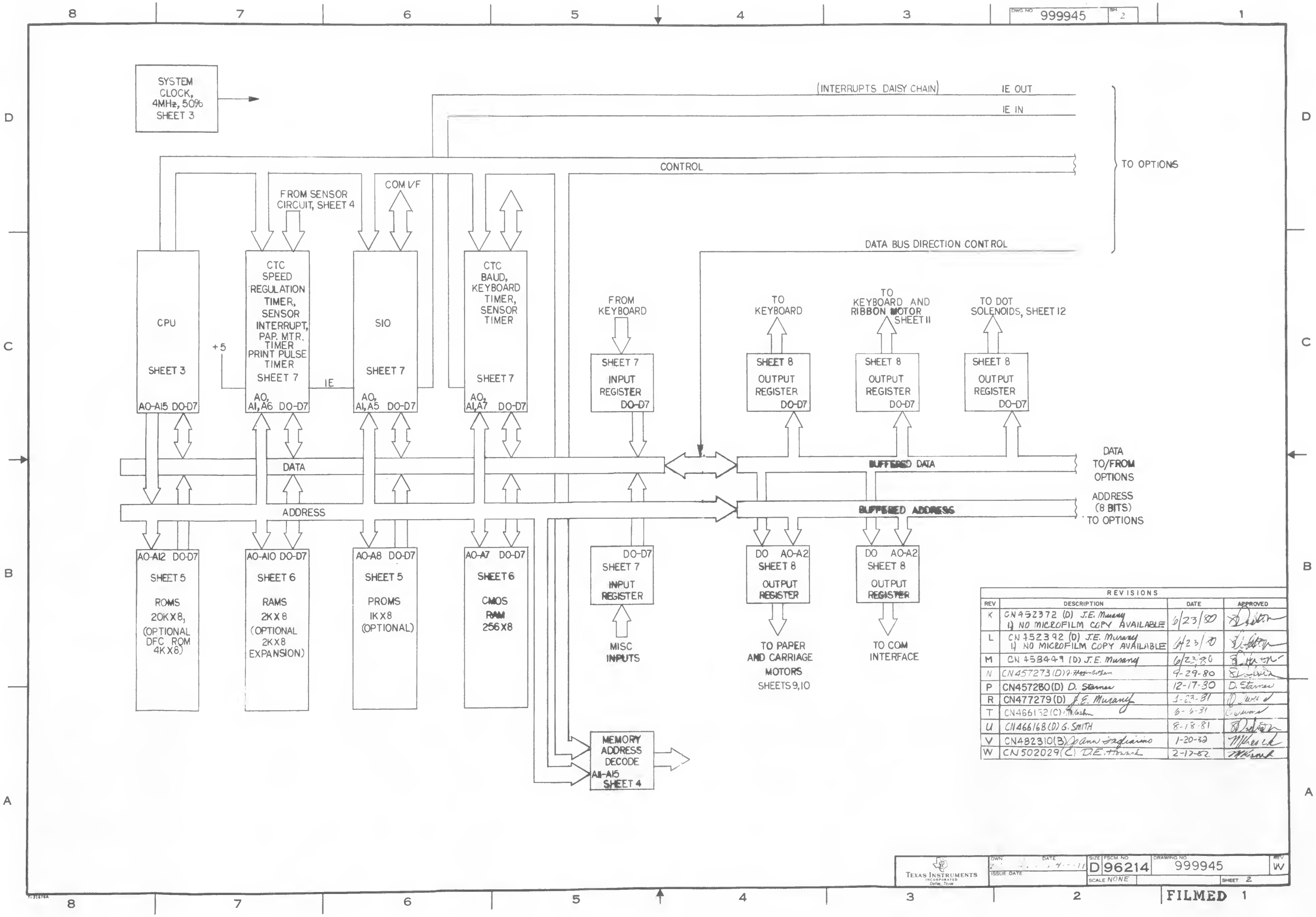
SIZE D FSCM NO 96214 DRAWING NO 999945 FILMED
SCALE NONE SHEET 1 OF 14

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES	REV STATUS OF SHEETS	REV SH
	PROCESS		CLASSIFICATION				

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

H-MT

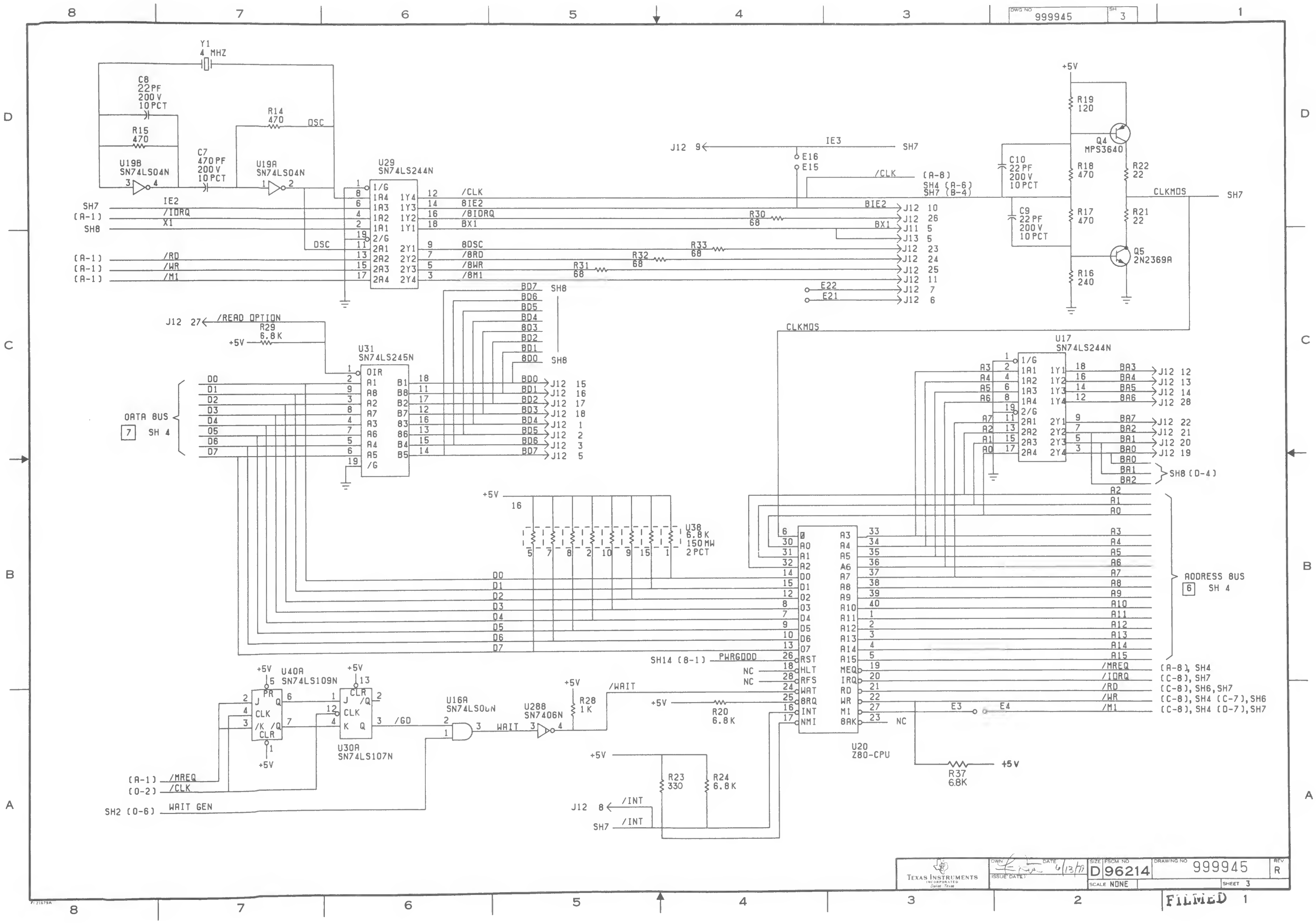
FILMED


SYSTEM CLOCK, 4MHz, 50% SHEET 3
(INTERRUPTS DAISY CHAIN)
IE OUT
IE IN
CONTROL
TO OPTIONS
DATA BUS DIRECTION CONTROL
FROM SENSOR CIRCUIT, SHEET 4
COM I/F
CPU SHEET 3 AO-AI5 DO-D7
+5
CTC SPEED REGULATION TIMER, SENSOR INTERRUPT, PAP. MTR. TIMER PRINT PULSE TIMER SHEET 7 AO, AI, A6 DO-D7
IE
SIO SHEET 7 AO, AI, A5 DO-D7
CTC BAUD, KEYBOARD TIMER, SENSOR TIMER SHEET 7 AO, AI, A7 DO-D7
FROM KEYBOARD
SHEET 7 INPUT REGISTER DO-D7
TO KEYBOARD
SHEET 8 OUTPUT REGISTER DO-D7
TO KEYBOARD AND RIBBON MOTOR SHEET II
SHEET 8 OUTPUT REGISTER DO-D7
TO DOT SOLENOIDS, SHEET 12
SHEET 8 OUTPUT REGISTER DO-D7
DATA
ADDRESS
BUFFERED DATA
BUFFERED ADDRESS
DATA TO/FROM OPTIONS
ADDRESS (8 BITS) TO OPTIONS
AO-AI2 DO-D7 SHEET 5 ROMS 20K X 8, (OPTIONAL DFC ROM 4K X 8)
AO-AIO DO-D7 SHEET 6 RAMS 2K X 8 (OPTIONAL 2K X 8 EXPANSION)
AO-A8 DO-D7 SHEET 5 PROMS IK X 8 (OPTIONAL)
AO-A7 DO-D7 SHEET 6 CMOS RAM 256 X 8
DO-D7 SHEET 7 INPUT REGISTER
MISC INPUTS
DO AO-A2 SHEET 8 OUTPUT REGISTER
TO PAPER AND CARRIAGE MOTORS SHEETS 9,10
DO AO-A2 SHEET 8 OUTPUT REGISTER
TO COM INTERFACE
MEMORY ADDRESS DECODE AII-AI5 SHEET 4
8 7 6 5 4 3 2 1
D C B A

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
K	CN452372 (D) J.E. Murany 1) NO MICROFILM COPY AVAILABLE	6/23/80	
L	CN452392 (D) J.E. Murany 1) NO MICROFILM COPY AVAILABLE	6/23/80	
M	CN 458449 (D) J.E. Murany	6/23/80	
N	CN457273 (D) J. Higginbotham	9-29-80	
P	CN457280 (D) D. Starnes	12-17-80	D. Starnes
R	CN477279 (D) J.E. Murany	1-23-81	
T	CN466152 (C) [illegible]	6-6-81	
U	CN466168 (D) G. SMITH	8-18-81	
V	CN482310 (B) JoAnn Tagliaimo	1-20-82	
W	CN502029 (C) D.E. Howard	2-17-82	

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN | DATE | ISSUE DATE
SIZE D | FSCM NO 96214 | DRAWING NO 999945 | REV W
SCALE NONE | SHEET 2

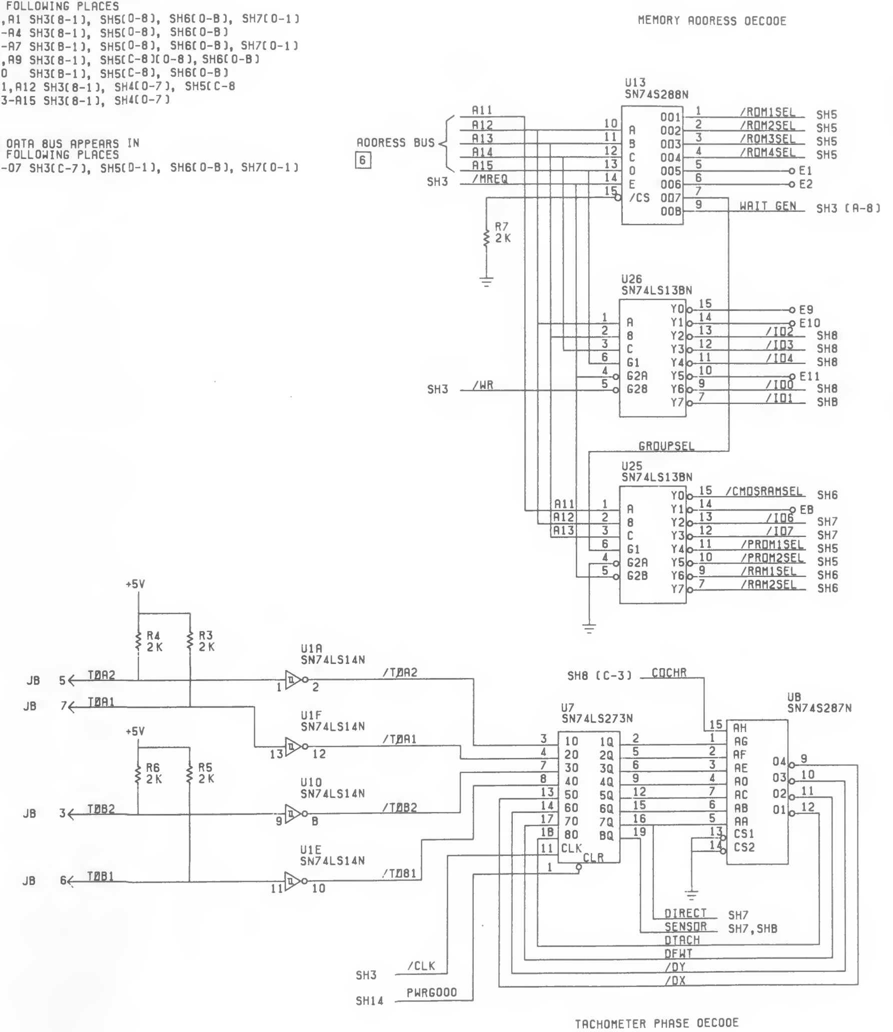
FILMED


DWG NO 999945 SH 3
Y1 4 MHZ
C8 22PF 200V 10PCT
R15 470
U19B SN74LS04N
C7 470PF 200V 10PCT
R14 470
U19A SN74LS04N
OSC
U29 SN74LS244N
SH7 (A-1) SH8
IE2 /IORQ X1
(A-1) /RD (A-1) /WR (A-1) /M1
/CLK BIE2 /BIORQ BX1 BOSC /BRD /BWR /BM1
R30 68
R31 68
R32 68
R33 68
J12 9 IE3 SH7
E16 E15
/CLK (A-8) SH4 (A-6) SH7 (B-4)
J12 10 J12 26 J11 5 J13 5 J12 23 J12 24 J12 25 J12 11 J12 7 J12 6
E22 E21
+5V
R19 120
Q4 MPS3640
R22 22
R18 470
R21 22
R17 470
C10 22PF 200V 10PCT
C9 22PF 200V 10PCT
Q5 2N2369A
R16 240
CLKMOS SH7
J12 27 /READ OPTION
R29 6.8K
U31 SN74LS245N
DATA BUS 7 SH 4
D0 D1 D2 D3 D4 D5 D6 D7
BD0 BD1 BD2 BD3 BD4 BD5 BD6 BD7 SH8
J12 15 J12 16 J12 17 J12 18 J12 1 J12 2 J12 3 J12 5
U17 SN74LS244N
BA3 J12 12 BA4 J12 13 BA5 J12 14 BA6 J12 28
BA7 J12 22 BA2 J12 21 BA1 J12 20 BA0 J12 19
SH8 (D-4)
U38 6.8K 150MW 2PCT
U20 Z80-CPU
ADDRESS BUS 6 SH 4
A0–A15
SH14 (B-1) PWRGOOD
NC NC
/WAIT
R20 6.8K
R28 1K
/MREQ (A-8), SH4
/IORQ (C-8), SH7
/RD (C-8), SH6, SH7
/WR (C-8), SH4 (C-7), SH6
/M1 (C-8), SH4 (D-7), SH7
E3 E4
R37 6.8K +5V
R23 330
R24 6.8K
J12 8 /INT
SH7 /INT
U40A SN74LS109N
U30A SN74LS107N
U16A SN74LS00N
U28B SN7406N
/GD WAIT
(A-1) /MREQ
(D-2) /CLK
SH2 (D-6) WAIT GEN
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN 6/13/79
ISSUE DATE
SIZE D FSCM NO 96214
DRAWING NO 999945
REV R
SCALE NONE
SHEET 3
FILMED

6 THE ADDRESS BUS APPEARS IN
THE FOLLOWING PLACES
A0,A1 SH3(B-1), SH5(D-8), SH6(D-8), SH7(D-1)
A2-A4 SH3(B-1), SH5(D-8), SH6(D-8)
A5-A7 SH3(B-1), SH5(D-8), SH6(D-8), SH7(D-1)
A8,A9 SH3(B-1), SH5(C-8)(D-8), SH6(D-8)
A10 SH3(B-1), SH5(C-8), SH6(D-8)
A11,A12 SH3(B-1), SH4(D-7), SH5(C-8
A13-A15 SH3(B-1), SH4(D-7)

7 THE DATA BUS APPEARS IN
THE FOLLOWING PLACES
D0-D7 SH3(C-7), SH5(D-1), SH6(D-8), SH7(D-1)

MEMORY ADDRESS DECODE



TACHOMETER PHASE DECODE

U13 ROM DECODE 74S288

E D C B A	O8	O7	O6	O5	O4	O3	O2	O1	COMMENTS
0 0 0 0 0	1	0	0	0	1	1	1	0	ROM 1
0 0 0 0 1	1	0	0	0	1	1	1	0	
0 0 0 1 0	1	0	0	0	1	1	0	1	ROM 2
0 0 0 1 1	1	0	0	0	1	1	0	1	
0 0 1 0 0	1	0	0	0	1	0	1	1	ROM 3 (OFC)
0 0 1 0 1	1	0	0	0	0	1	1	1	ROM 4 (DOTS)
0 0 1 1 0	0	1	0	0	1	1	1	1	GROUP SEL PROM 1, PROM 2
0 0 1 1 1	0	1	0	0	1	1	1	1	RAM 1, RAM 2
0 1 0 0 0	1	1	0	0	1	1	1	1	CMOS, ------
0 1 0 0 1	0	1	0	0	1	1	1	1	KB COL IN, BITS IN
0 1 0 1 0	0	0	0	0	1	1	1	1	IO 2 (KB ROWS LS)
0 1 0 1 1	0	0	0	0	1	1	1	1	IO 3 (KB ROWS MS)
0 1 1 0 0	0	0	0	0	1	1	1	1	IO 4 (DOTS)
0 1 1 0 1	0	0	0	0	1	1	1	1	
0 1 1 1 0	0	0	0	0	1	1	1	1	IO 0 (BELL,ETC)
0 1 1 1 1	0	0	0	0	1	1	1	1	IO 1 (PAPER,CARR)
1 0 0 0 0	0	0	0	0	1	1	1	1	
1 0 0 0 1	0	0	0	0	1	1	1	1	
1 0 0 1 0	0	0	0	0	1	1	1	1	
1 0 0 1 1	0	0	0	0	1	1	1	1	
1 0 1 0 0	0	0	0	0	1	1	1	1	
1 0 1 0 1	0	0	0	0	1	1	1	1	
1 0 1 1 0	0	1	0	0	1	1	1	1	GROUP SEL
1 0 1 1 1	0	1	0	0	1	1	1	1	
1 1 0 0 0	0	1	0	0	1	1	1	1	
1 1 0 0 1	0	1	0	0	1	1	1	1	
1 1 0 1 0	0	0	0	0	1	1	1	1	
1 1 0 1 1	0	0	0	0	1	1	1	1	
1 1 1 0 0	0	0	0	0	1	1	1	1	
1 1 1 0 1	0	0	0	0	1	1	1	1	
1 1 1 1 0	0	0	0	0	1	1	1	1	
1 1 1 1 1	0	0	0	0	1	1	1	1	

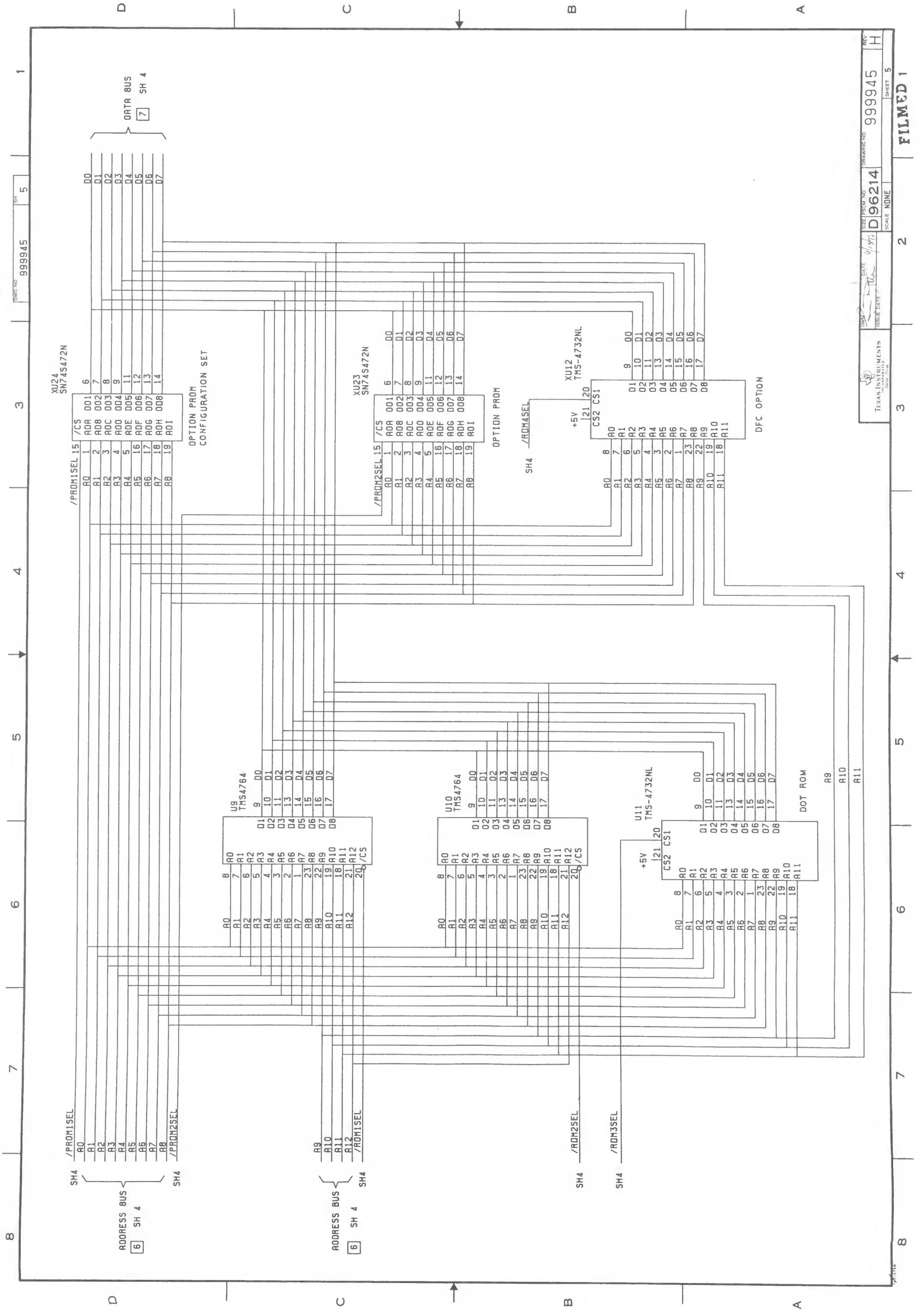
U8 TACH STATE 74S287 O4 O3 O2 O1

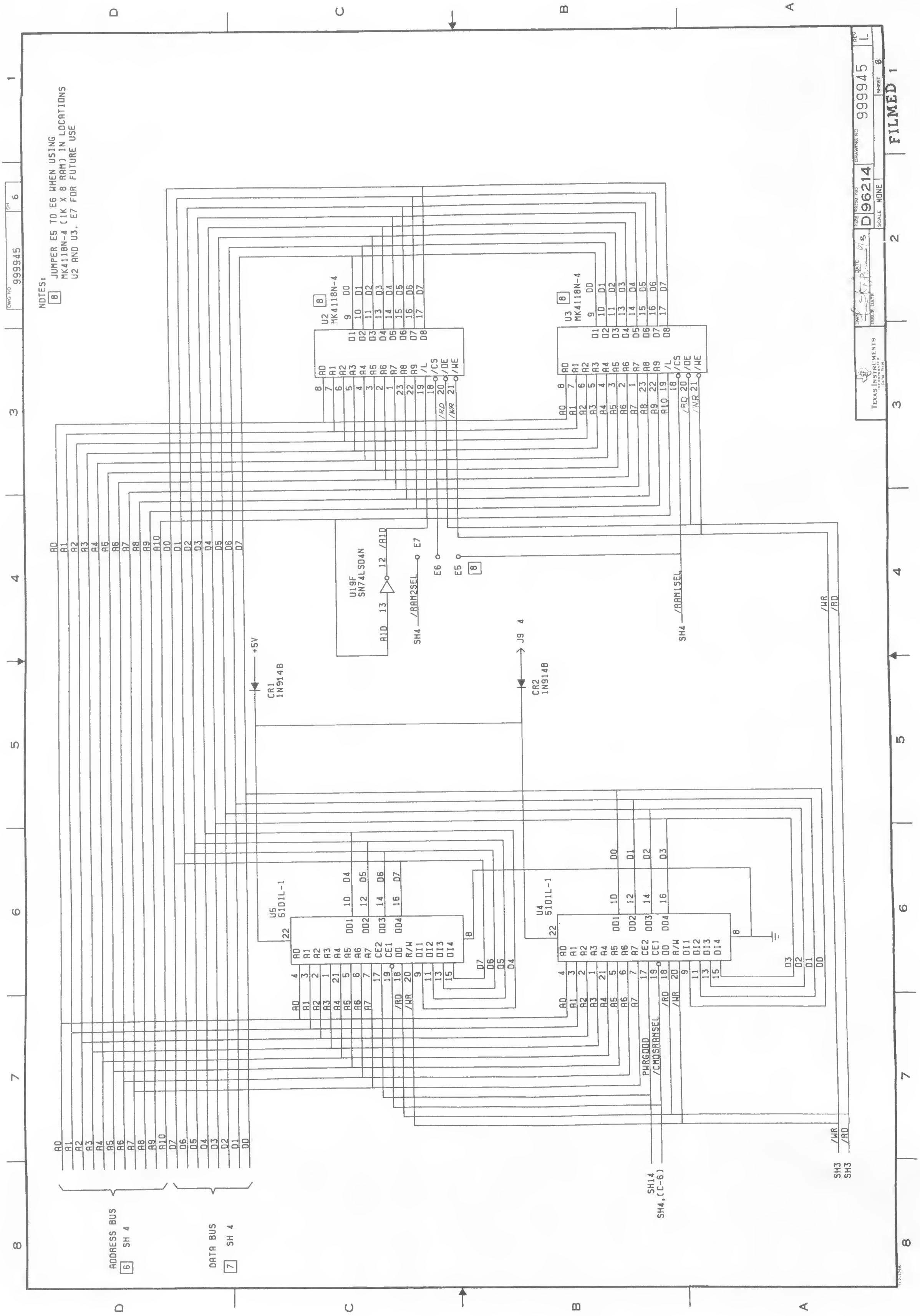
HGFED \ CBA	000	001	010	011	100	101	110	111
00000	0000	0010	0000	0010	1100	1110	1100	1110
00001	0000	0010	0000	0010	1100	1110	1100	1110
00010	0000	0010	0000	0010	1100	1110	1100	1110
00011	0000	0010	0000	0010	1100	1110	1100	1110
00100	0100	0110	0100	0110	0100	0110	0111	0111
00101	1001	1001	1000	1010	1000	1010	1000	1010
00110	0100	0110	0100	0110	0100	0110	0111	0111
00111	1001	1001	1000	1010	1000	1010	1000	1010
01000	0000	0010	0000	0010	1100	1110	1100	1110
01001	0000	0010	0000	0010	1100	1110	1100	1110
01010	0000	0010	0000	0010	1100	1110	1100	1110
01011	0000	0010	0000	0010	1100	1110	1100	1110
01100	0100	0110	0100	0110	0100	0110	0111	0111
01101	1001	1001	1000	1010	1000	1010	1000	1010
01110	0100	0110	0100	0110	0100	0110	0111	0111
01111	1001	1001	1000	1010	1000	1010	1000	1010
10000	0000	0010	0000	0010	1100	1110	1100	1110
10001	0000	0010	0000	0010	1100	1110	1100	1110
10011	0000	0010	0000	0010	1100	1110	1100	1110
10100	0000	0010	0000	0010	1100	1110	1100	1110
10101	0000	0010	0000	0010	1100	1110	1100	1110
10110	0000	0010	0000	0010	1100	1110	1100	1110
10111	0000	0010	0000	0010	1100	1110	1100	1110
11000	0100	0110	0100	0110	0100	0110	0111	0111
11001	0100	0110	0100	0110	0100	0110	0111	0111
11010	1001	1001	1000	1010	1000	1010	1000	1010
11011	1001	1001	1000	1010	1000	1010	1000	1010
11100	0100	0110	0100	0110	0100	0110	0111	0111
11101	0100	0110	0100	0110	0100	0110	0111	0111
11110	1001	1001	1000	1010	1000	1010	1000	1010
11111	1001	1001	1000	1010	1000	1010	1000	1010

TEXAS INSTRUMENTS
INCORPORATED
Dallas Texas

DWN	DATE 6/13/79	SIZE D	FSCM NO 96214
ISSUE DATE		SCALE NONE	
DRAWING NO 999945	REV R	SHEET 4	DWG NO 999945 SH 4

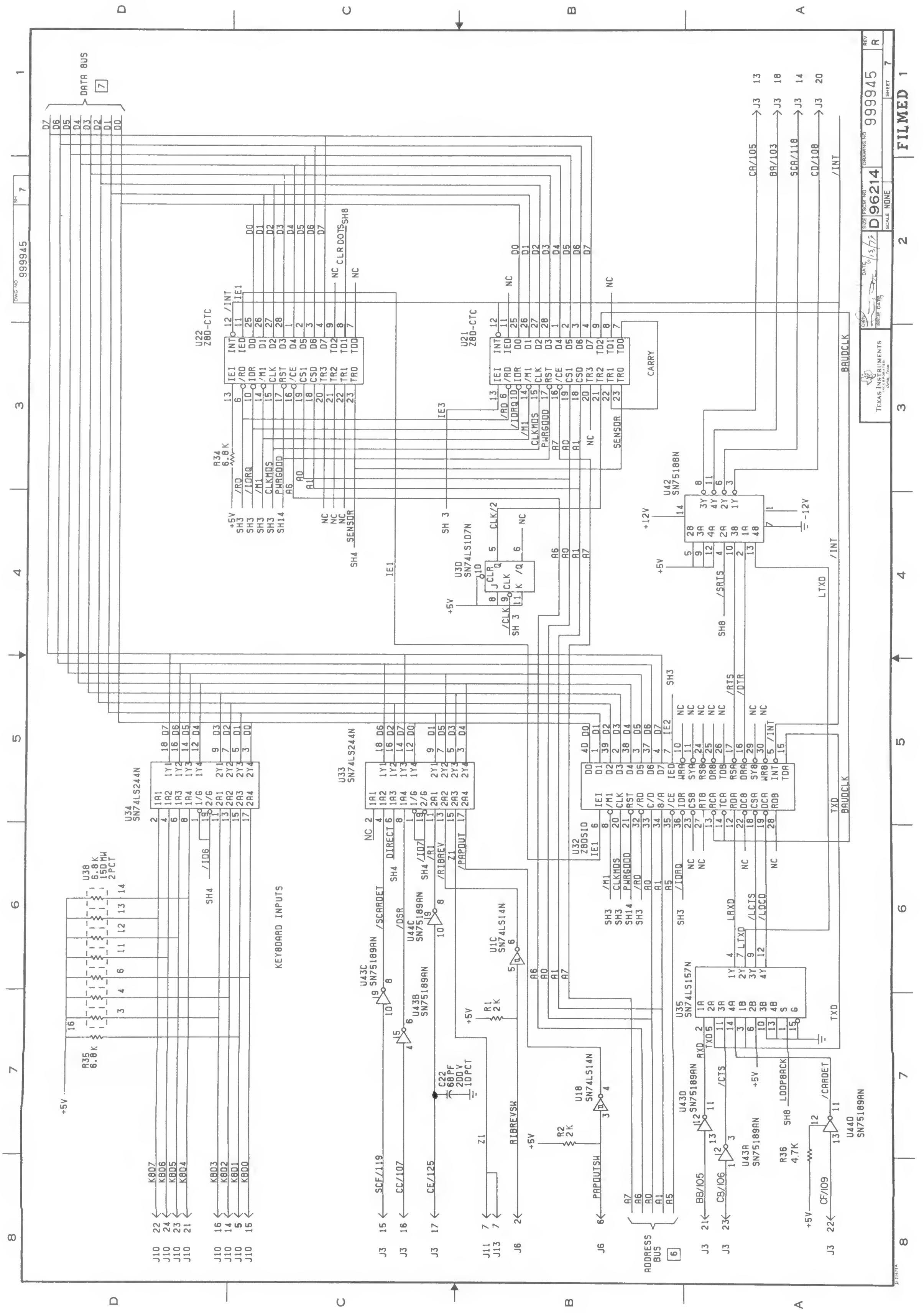
FILMED 1

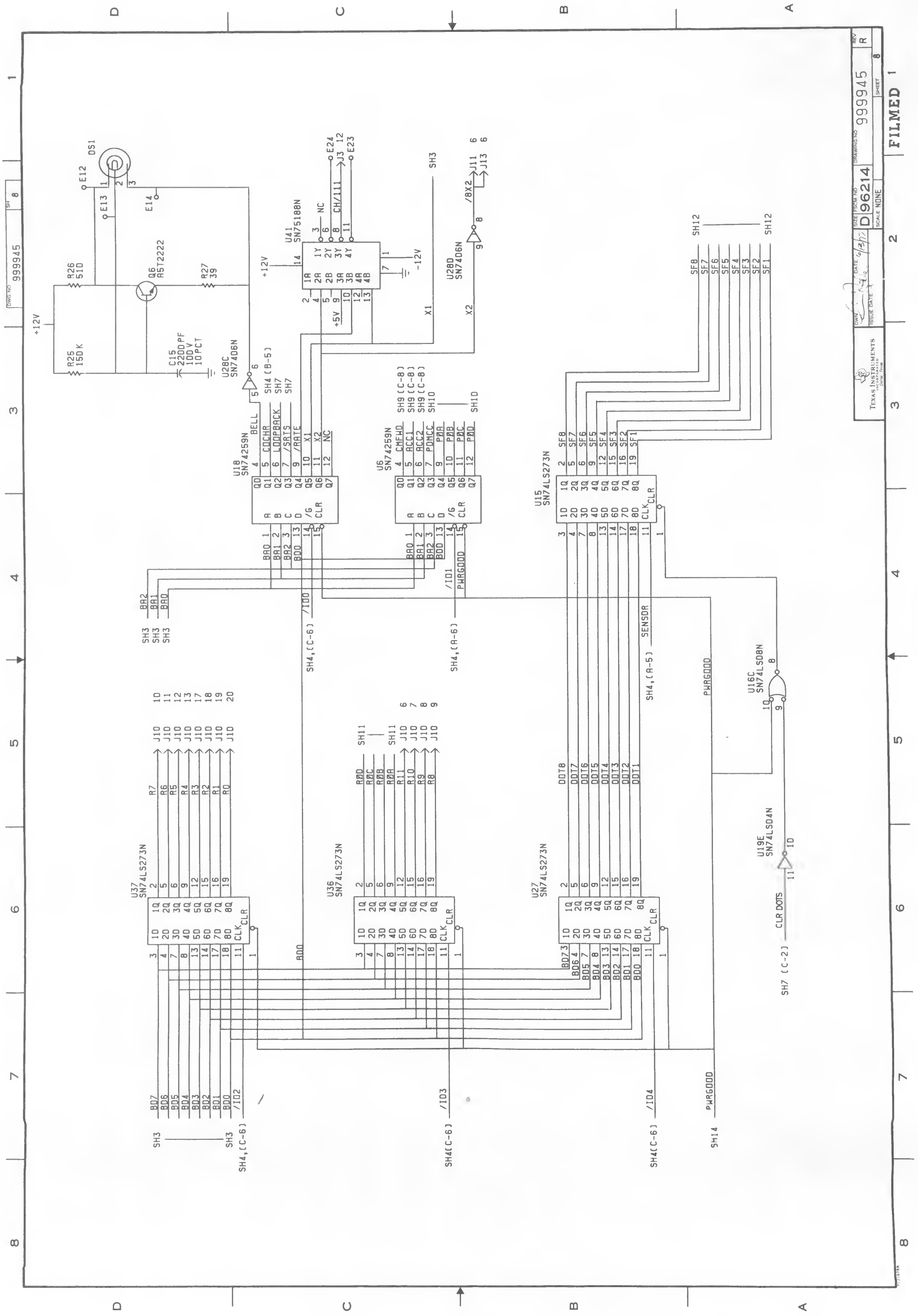

DWG NO 999945
SH 5
DATA BUS
7 SH 4
D0
D1
D2
D3
D4
D5
D6
D7
XU24
SN74S472N
OPTION PROM
CONFIGURATION SET
/PROM1SEL
XU23
SN74S472N
OPTION PROM
/PROM2SEL
XU12
TMS-4732NL
DFC OPTION
SH4 /ROM4SEL
+5V
CS2 CS1
U9
TMS4764
/CS
U10
TMS4764
U11
TMS-4732NL
DOT ROM
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
/ROM1SEL
/ROM2SEL
/ROM3SEL
SH4
ADDRESS BUS
6 SH 4
TEXAS INSTRUMENTS
SIZE D
FSCM NO 96214
DRAWING NO 999945
REV H
SCALE NONE
SHEET 5
FILMED 1



NOTES:

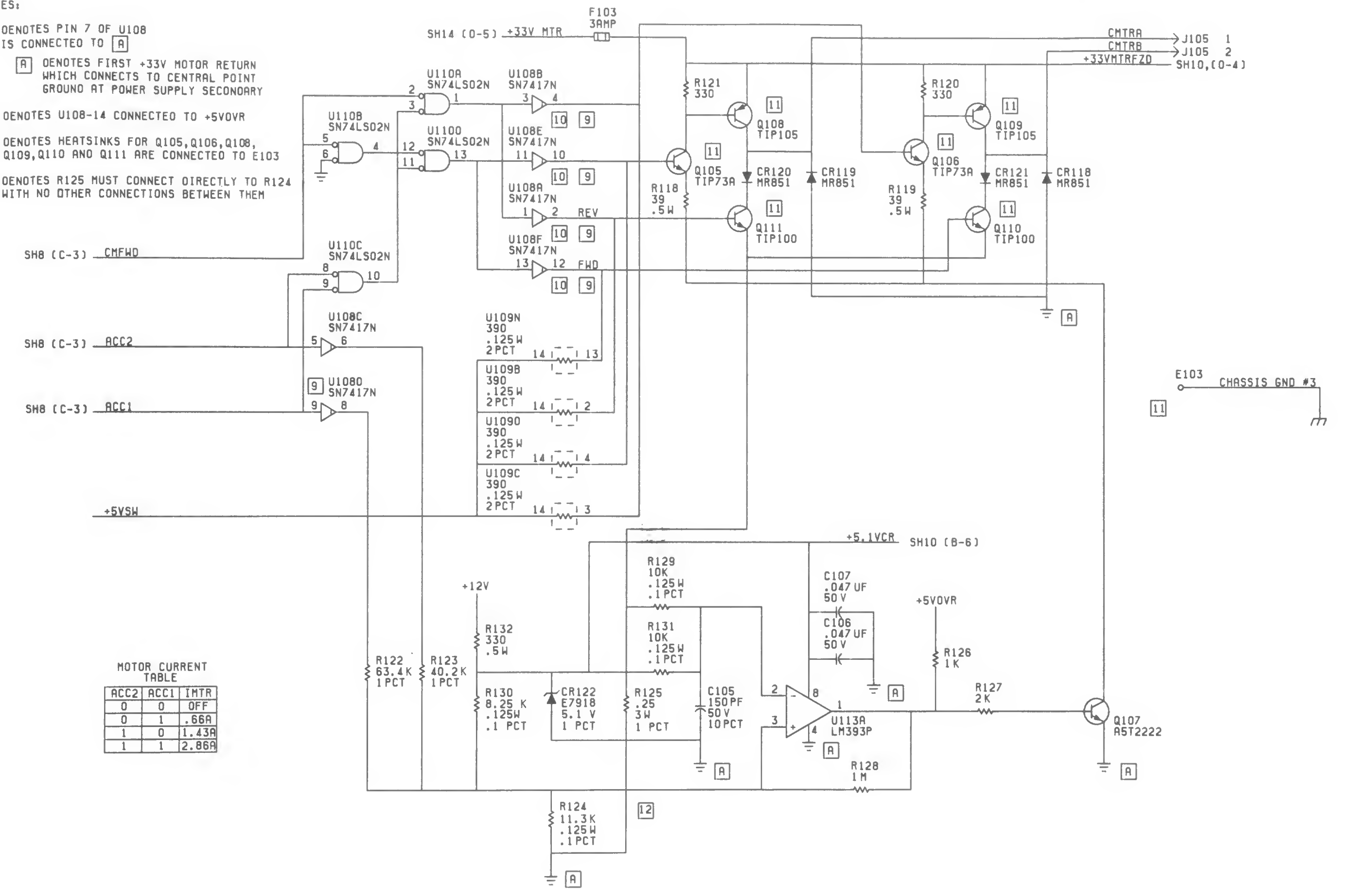
8 JUMPER E5 TO E6 WHEN USING MK4118N-4 (1K X 8 RAM) IN LOCATIONS U2 AND U3. E7 FOR FUTURE USE


DATA BUS 7
D7 D6 D5 D4 D3 D2 D1 D0
U22 Z80-CTC
U21 Z80-CTC
CLR DOTS SH8
CARRY
SENSOR
BAUDCLK
U30 SN74LS107N
CLK/2
U42 SN75188N
+12V
-12V
/SRTS
LTXD
/INT
CA/105 J3 13
BA/103 J3 18
SCA/118 J3 14
CD/108 J3 20
U34 SN74LS244N
U33 SN74LS244N
U32 Z80SIO
U35 SN74LS157N
KEYBOARD INPUTS
U38 6.8K 150MW 2PCT
R35 6.8K
R34 6.8K
R1 2K
R2 2K
R36 4.7K
C22 68PF 200V 10PCT
U43C SN75189AN
U43B SN75189AN
U44C SN75189AN
U1C SN74LS14N
U18 SN74LS14N
U43D SN75189AN
U43A SN75189AN
U44D SN75189AN
/SCARDET
DIRECT
/DSR
/RIBREV
PAPOUT
Z1
LRXD
/LCTS
/LDCD
/RTS
/DTR
TXD
RXD
LOOPBACK
/CARDET
KBD7 KBD6 KBD5 KBD4 KBD3 KBD2 KBD1 KBD0
J10 22 24 23 21 16 14 5 15
SCF/119 J3 15
CC/107 J3 16
CE/125 J3 17
J11 7
J13 7
RIBREVSW J6 2
PAPOUTSW J6 6
ADDRESS BUS 6
A7 A6 A0 A1 A5
BB/105 J3 21
CB/106 J3 23
CF/109 J3 22
+5V
TEXAS INSTRUMENTS
D 96214
999945
SCALE NONE
SHEET 7
REV R
FILMED


DS1
E12
E13
E14
R26 510
Q6 A5T2222
R27 39
+12V
R25 150K
C15 2200PF 100V 10PCT
U28C SN7406N
SH4 (B-5)
SH7
SH7
BELL
U18 SN74259N
CODHR
LOOPBACK
/SRTS
/RATE
X1
X2
NC
U41 SN75188N
NC
CH/111
E24
J3 12
E23
+5V
-12V
SH3
U28D SN7406N
/8X2
J11 6
J13 6
U6 SN74259N
CMFWD
ACC1
ACC2
PDMCC
PØA
PØB
PØC
PØD
SH9 (C-8)
SH9 (C-8)
SH9 (C-8)
SH10
SH10
U15 SN74LS273N
SF8
SF7
SF6
SF5
SF4
SF3
SF2
SF1
SH12
SH12
BA2
BA1
BA0
SH3
SH3
SH3
/ID0
SH4,(C-6)
/ID1
PWRGOOD
SH4,(A-6)
SENSOR
SH4,(A-5)
PWRGOOD
U16C SN74LS08N
U37 SN74LS273N
R7
R6
R5
R4
R3
R2
R1
R0
J10 10
J10 11
J10 12
J10 13
J10 17
J10 18
J10 19
J10 20
U36 SN74LS273N
RØD
RØC
RØB
RØA
R11
R10
R9
R8
SH11
SH11
J10 6
J10 7
J10 8
J10 9
U27 SN74LS273N
DOT8
DOT7
DOT6
DOT5
DOT4
DOT3
DOT2
DOT1
U19E SN74LS04N
CLR DOTS
SH7 (C-2)
BD7
BD6
BD5
BD4
BD3
BD2
BD1
BD0
/ID2
SH3
SH3
SH4,(C-6)
/ID3
SH4(C-6)
/ID4
SH4(C-6)
PWRGOOD
SH14
999945
SH 8
TEXAS INSTRUMENTS
D 96214
999945
SCALE NONE
SHEET 8
REV R
FILMED

NOTES:

- 9 DENOTES PIN 7 OF U108 IS CONNECTED TO A
  - A DENOTES FIRST +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINT GROUND AT POWER SUPPLY SECONDARY
- 10 DENOTES U108-14 CONNECTED TO +5VOVR
- 11 DENOTES HEATSINKS FOR Q105,Q106,Q108, Q109,Q110 AND Q111 ARE CONNECTED TO E103
- 12 DENOTES R125 MUST CONNECT DIRECTLY TO R124 WITH NO OTHER CONNECTIONS BETWEEN THEM



MOTOR CURRENT TABLE

ACC2	ACC1	IMTR
0	0	OFF
0	1	.66A
1	0	1.43A
1	1	2.86A

CARRIAGE MOTOR DRIVE

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN / ISSUE DATE 6/13/79	SIZE D	FSCM NO 96214	DRAWING NO 999945	REV A
		SCALE NONE		SHEET 9	

FILMED 1

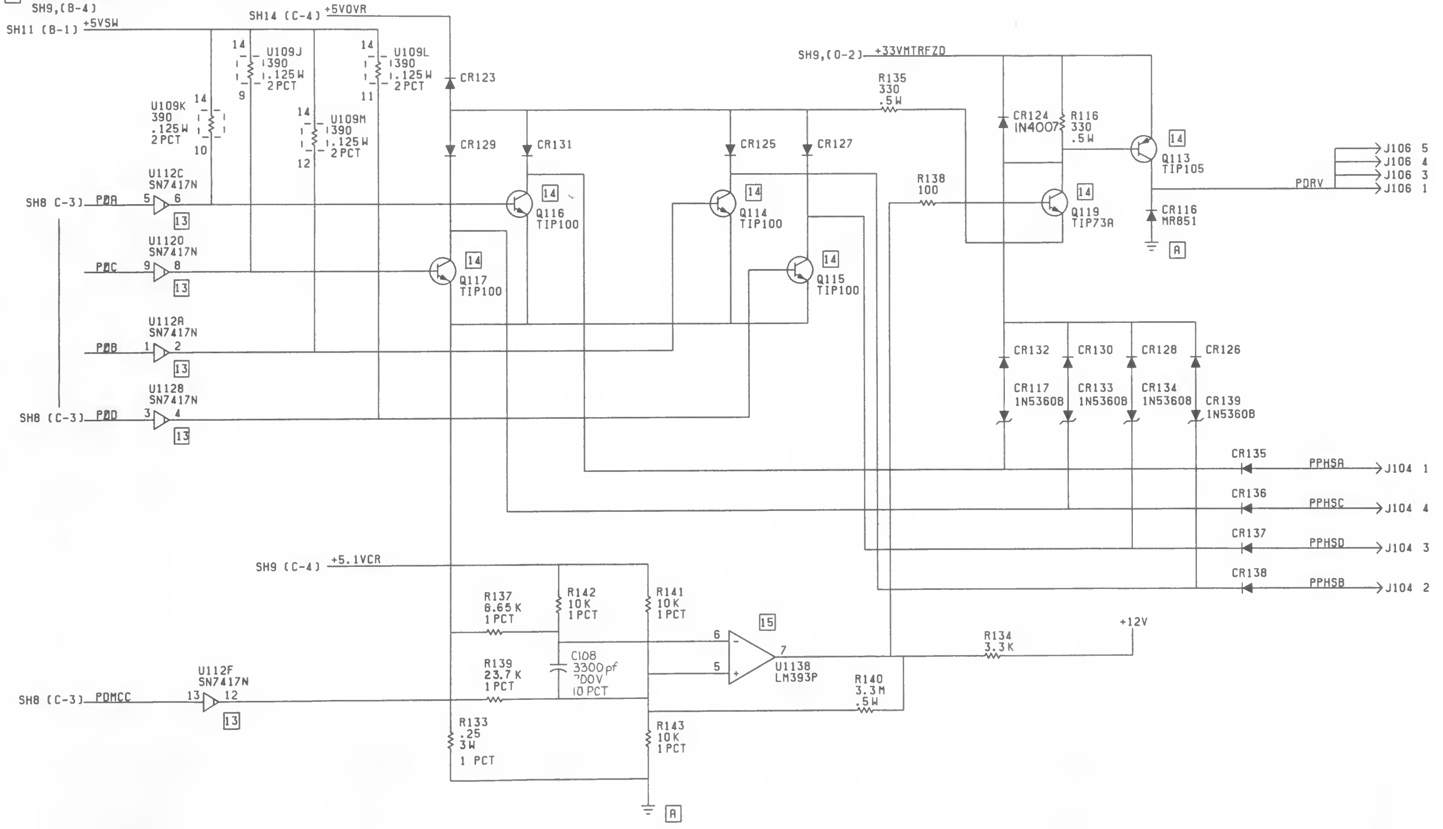
NOTES:

13 U112-14 IS CONNECTED TO +5VOVR

A DENOTES FIRST +33V MOTOR RETURN
WHICH CONNECTS TO CENTRAL POINTS
GROUND AT POWER SUPPLY SECONDARY

14 HEATSINKS FOR Q113,Q114,Q115,Q116,
Q117 AND Q119 ARE CONNECTED TO E102
SH12,(C-4)

15 POWER CONNECTION FOR U113 SHOWN ON
SH9,(B-4)



PAPER MOTOR DRIVE

TEXAS INSTRUMENTS
INCORPORATED
Dallas Texas

DWN	DATE	SIZE	FSCM NO	DRAWING NO	REV
	6/13/72	D	96214	999945	
ISSUE DATE		SCALE NONE		SHEET 10	

DWG NO 999945 SH 10

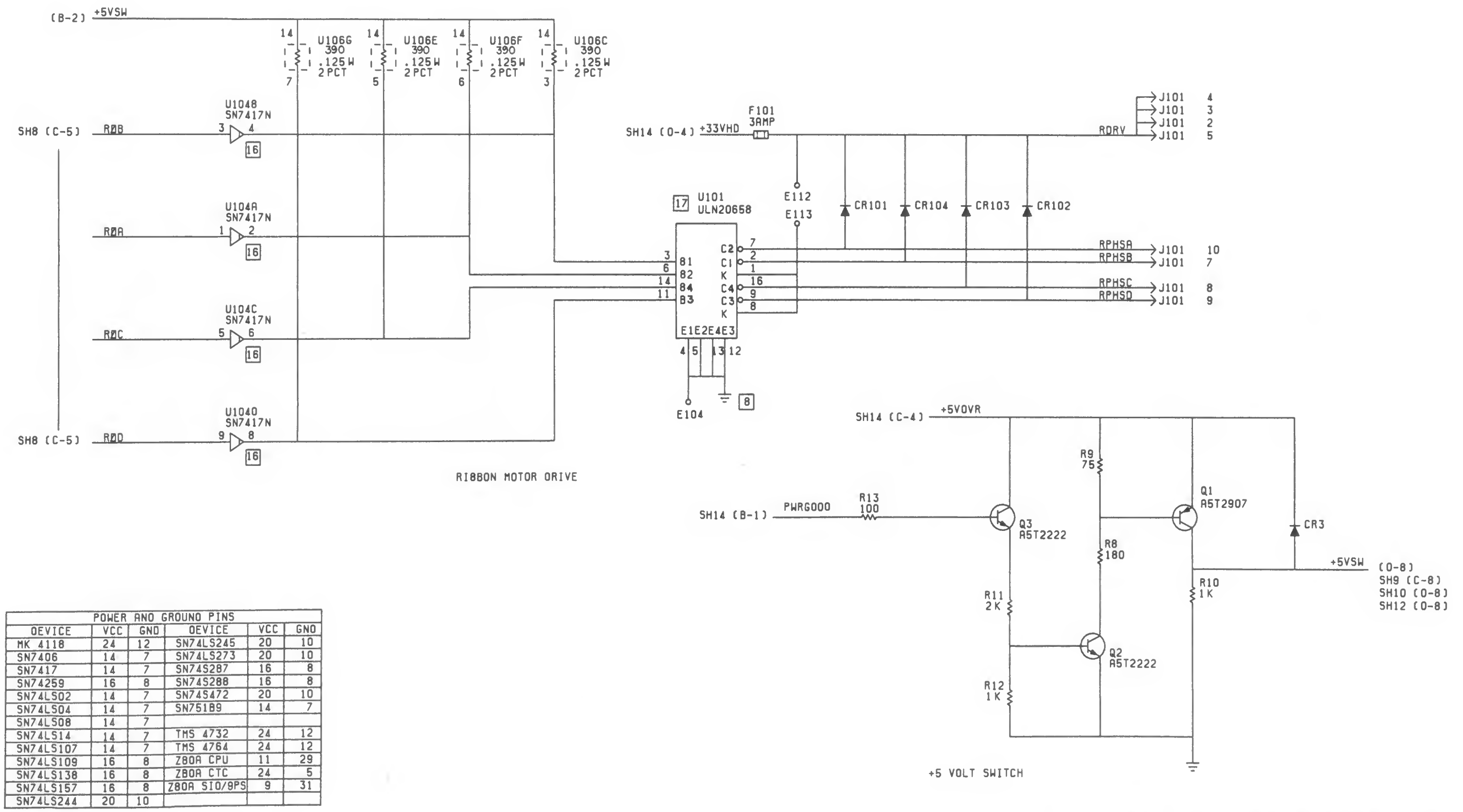
FILMED 1

NOTES:

16 DENOTES U104-14 IS CONNECTED TO +5VOVR U104-7 IS CONNECTED TO 8

8 DENOTES SECOND +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINT GROUND AT POWER SUPPLY SECONDARY

17 DENOTES HEATSINKS ON U101,U102,AND U103 ARE CONNECTED TO E104



POWER AND GROUND PINS					
DEVICE	VCC	GND	DEVICE	VCC	GND
MK 4118	24	12	SN74LS245	20	10
SN7406	14	7	SN74LS273	20	10
SN7417	14	7	SN74S287	16	8
SN74259	16	8	SN74S288	16	8
SN74LS02	14	7	SN74S472	20	10
SN74LS04	14	7	SN75189	14	7
SN74LS08	14	7			
SN74LS14	14	7	TMS 4732	24	12
SN74LS107	14	7	TMS 4764	24	12
SN74LS109	16	8	Z80A CPU	11	29
SN74LS138	16	8	Z80A CTC	24	5
SN74LS157	16	8	Z80A SIO/8PS	9	31
SN74LS244	20	10			

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

DWN
DATE 6/13/79
ISSUE DATE

SIZE D
FSCM NO 96214
DRAWING NO 999945
REV H
SCALE NONE
SHEET 11

FILMED 1

DWG NO 999945 SH 12

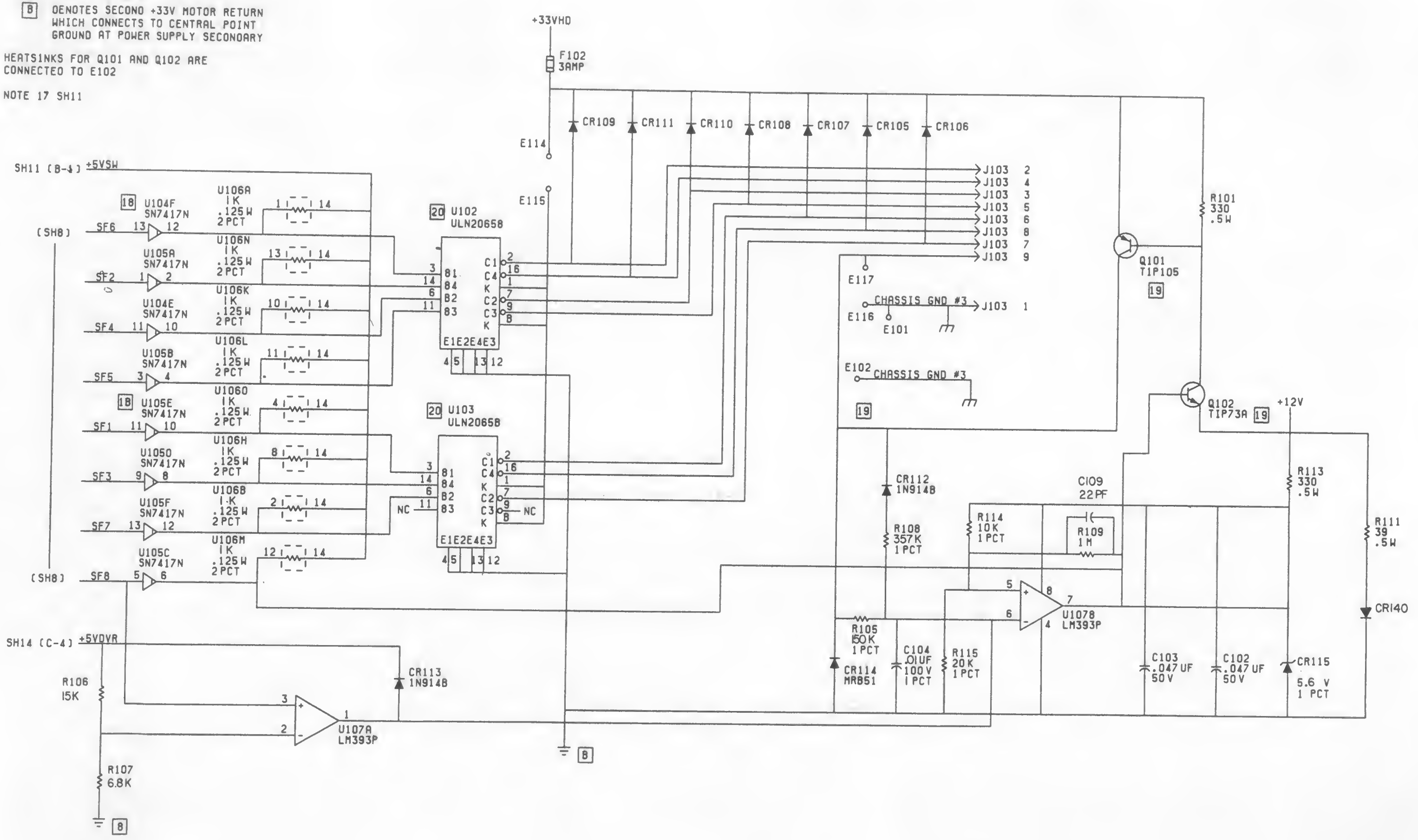
NOTES:

18 U104-14 AND U105-14 ARE CONNECTED TO +5VOVR , U104-7 AND U105-7 ARE CONNECTED TO 8

8 DENOTES SECOND +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINT GROUND AT POWER SUPPLY SECONDARY

19 HEATSINKS FOR Q101 AND Q102 ARE CONNECTED TO E102

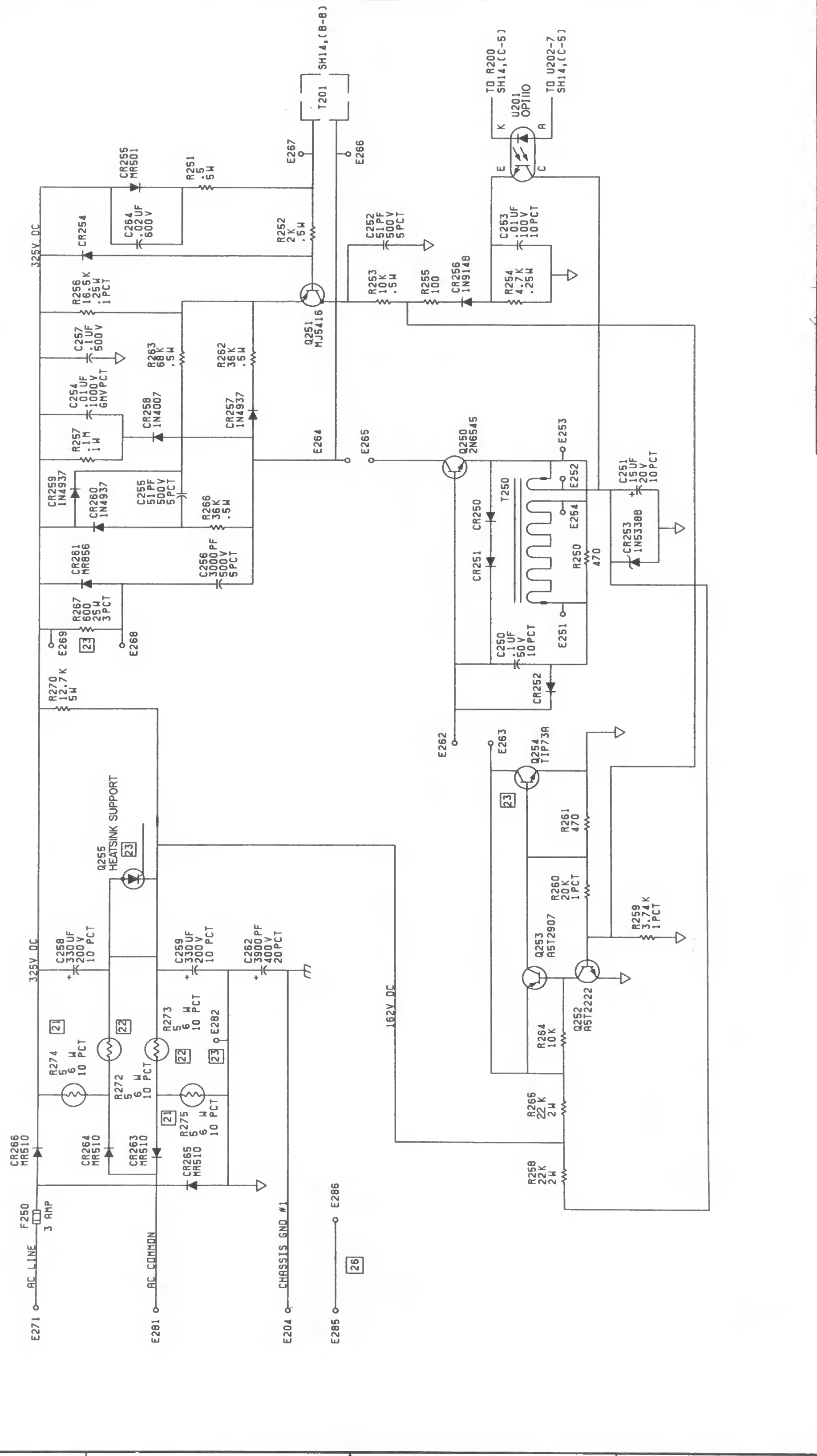
20 NOTE 17 SH11



PRINTHEAD DRIVE

TEXAS INSTRUMENTS INCORPORATED Dallas, Texas	DWN 9/13/79	SIZE D	FSCM NO 96214	DRAWING NO 999945	REV M
	ISSUE DATE	SCALE NONE		SHEET 12	

FILMED 1



NOTES:

21 THERMISTOR R274,R275 PRESENT ON 230 VAC VERSIONS ONLY

22 THERMISTOR R272,R273 PRESENT ON 115 VAC VERSIONS ONLY

23 HEATSINK CONNECTED TO E282

24 ▽ DENOTES 325V DC RETURN

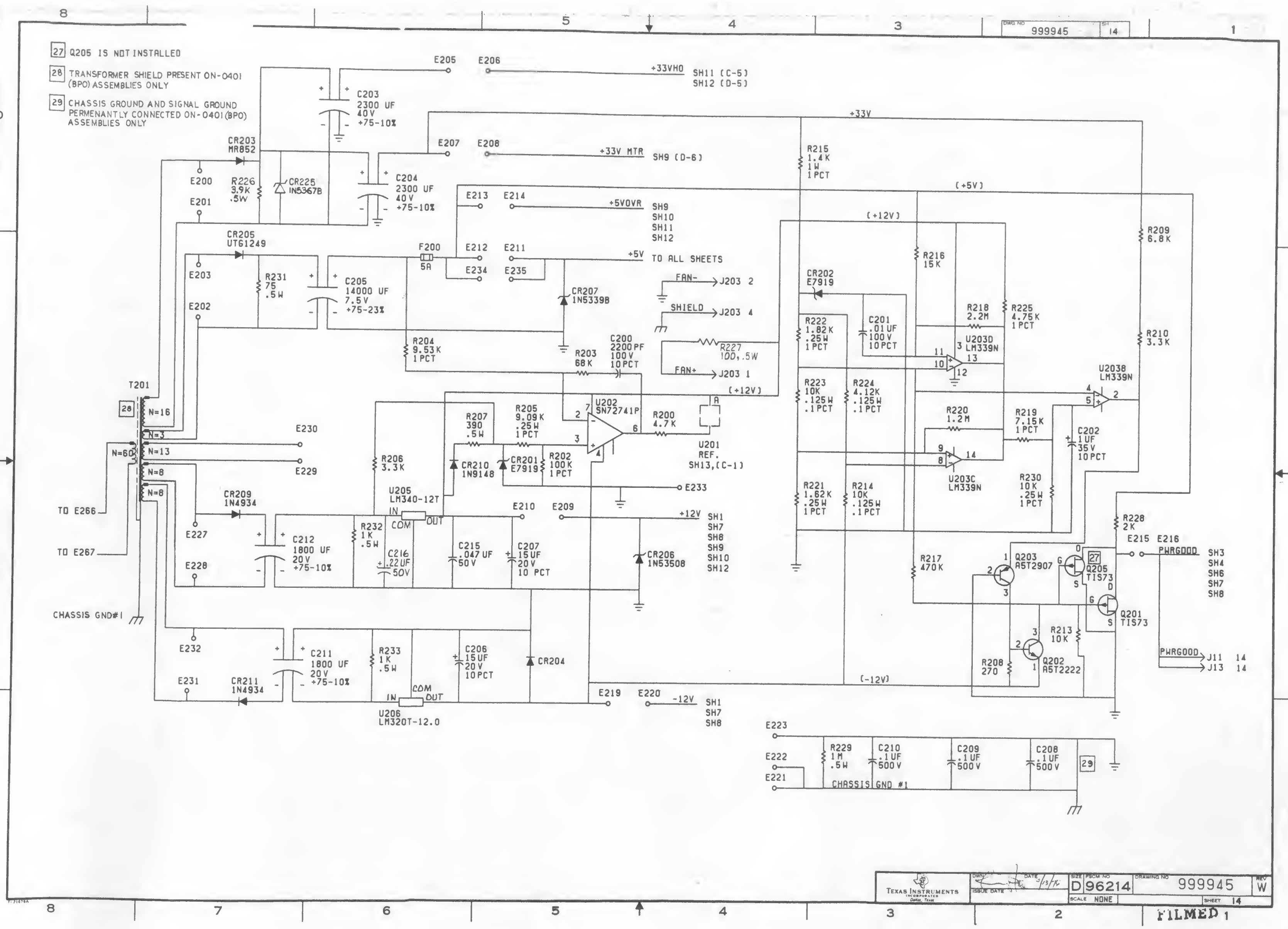
~~25 THE HEATSINK FOR Q250 IS NOT INSULATED FROM THE TRANSISTOR~~

26 JUMPER PRESENT ON 230 VAC VERSIONS ONLY

TEXAS INSTRUMENTS
INCORPORATED
Dallas Texas

DWN	DATE	SIZE	FSCM NO	DRAWING NO	REV
	6/13/79	D	96214	999945	R
ISSUE DATE		SCALE NONE		SHEET 13	

FILMED



27 Q205 IS NOT INSTALLED

28 TRANSFORMER SHIELD PRESENT ON-0401 (BPO) ASSEMBLIES ONLY

29 CHASSIS GROUND AND SIGNAL GROUND PERMENANTLY CONNECTED ON-0401 (BPO) ASSEMBLIES ONLY

DWG NO	SH
999951	1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN455654(D)	2/26/80	
B	CN503553(D) M Kuehn	11-6-82	

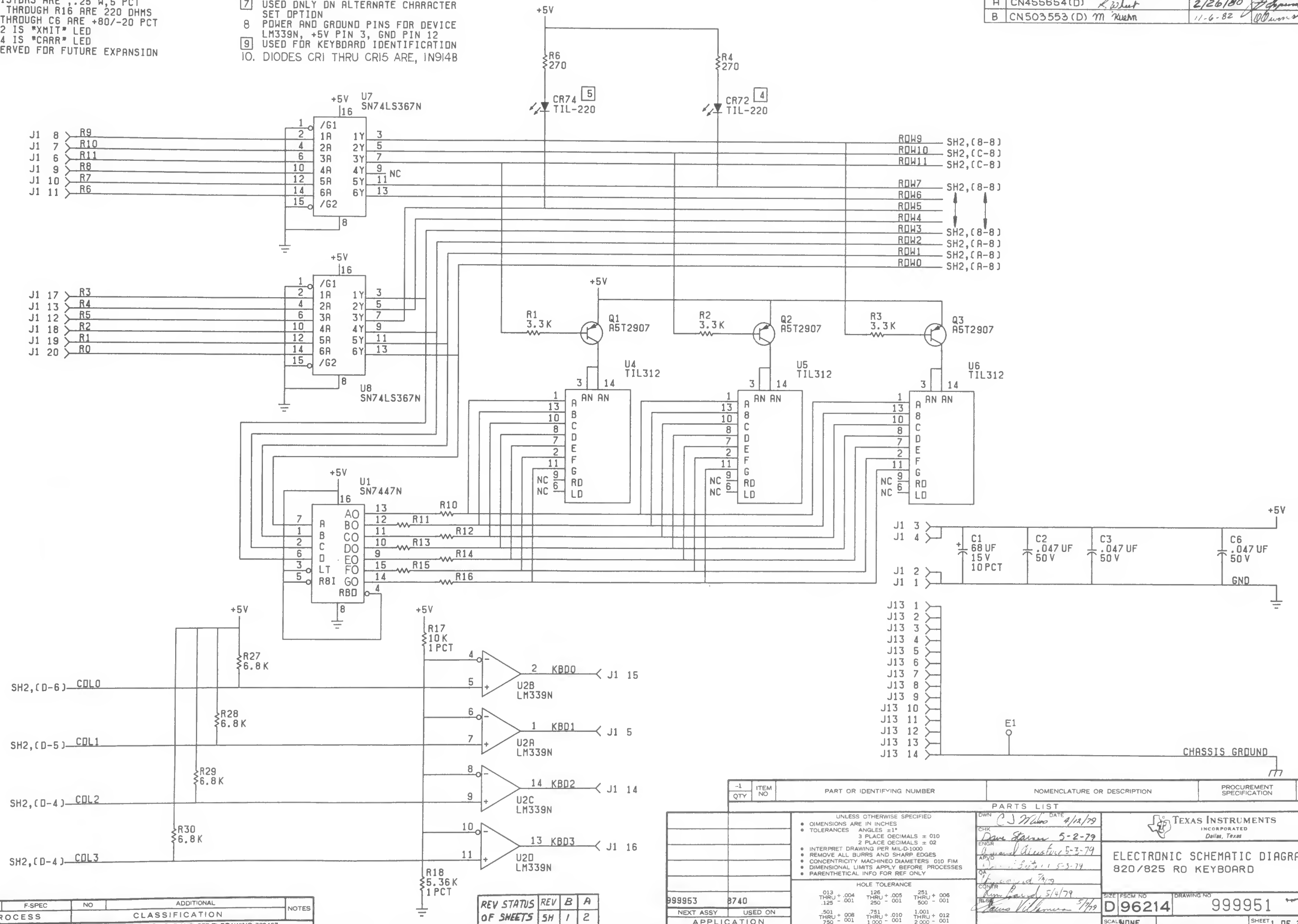
6

NOTES: UNLESS OTHERWISE SPECIFIED:

1. RESISTORS ARE ,.25 W,5 PCT
2. R10 THROUGH R16 ARE 220 OHMS
3. C2 THROUGH C6 ARE +80/-20 PCT
4. CR72 IS "XMIT" LED
5. CR74 IS "CARR" LED
6. RESERVED FOR FUTURE EXPANSION

NOTES: (CONTINUED)

7. USED ONLY ON ALTERNATE CHARACTER SET OPTION
8. POWER AND GROUND PINS FOR DEVICE LM339N, +5V PIN 3, GND PIN 12
9. USED FOR KEYBOARD IDENTIFICATION
10. DIODES CR1 THRU CR15 ARE, IN914B



23

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ± 010 2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU .125 + .004 - 001	126 THRU 250 + .005 - 001	251 THRU 500 + 006 - 001
.501 THRU 750 + 008 - 001	.751 THRU 1 000 + .010 - 001	1.001 THRU 2 000 + 012 - 001

NEXT ASSY	USED ON
999953	8740

APPLICATION

DWN C J Milns DATE 4/12/79
CHK Dave Starns 5-2-79
ENGR 5-3-79
APVD 5-3-79
QA 5/4/79
CONTR 5/4/79
RLSE 5/7/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

ELECTRONIC SCHEMATIC DIAGRAM,
820/825 RO KEYBOARD

SIZE D FSCM NO 96214 DRAWING NO 999951

SCALE NONE SHEET 1 OF 2

REV STATUS OF SHEETS	REV	B	A
	SH	1	2

SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

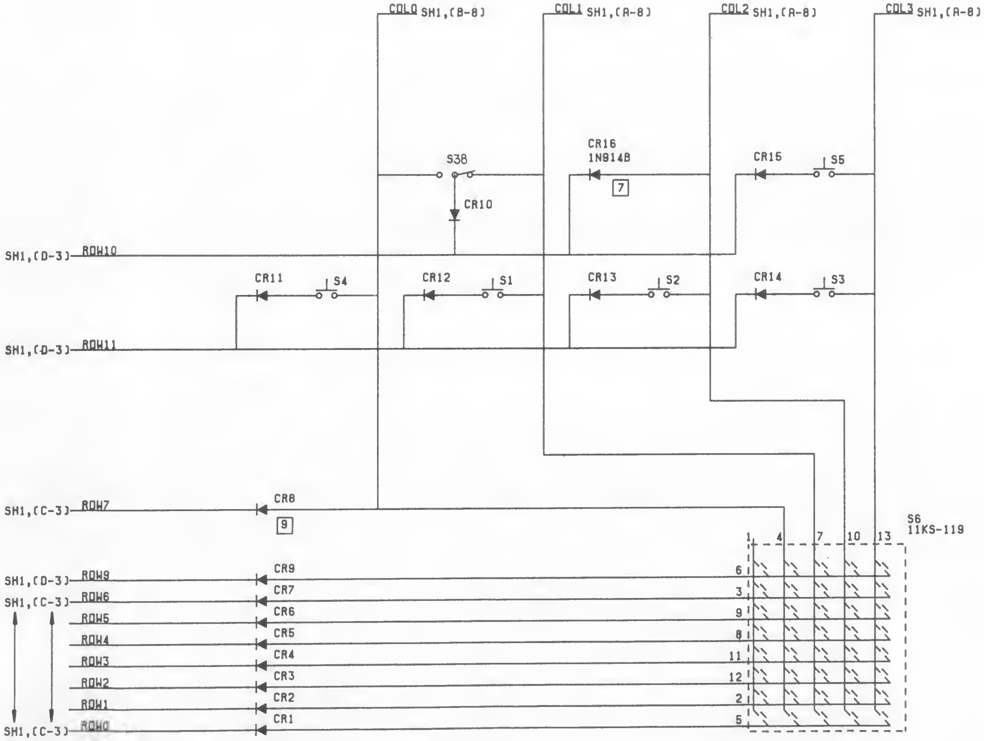
PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

TI-7814H

430

H-MT

DWG NO 999951 SH 2



	C0	C1	C2	C3
R0	6	0	6	6
R1	1	2	3	ESC
R2	4	5	6	DEL
R3	7	8	9	CR
R4	A	B	C	TAB
R5	D	E	F	VT
R6	FF	BS	LF	SP
R7	9			
R8				
R9	CONFIG	OPER	TEST	END
R10	LCL	ONLN	7	FORM ADV
R11	↓	LINE ADV	RESET	↑

ROW-COLUMN FUNCTION TABLE

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

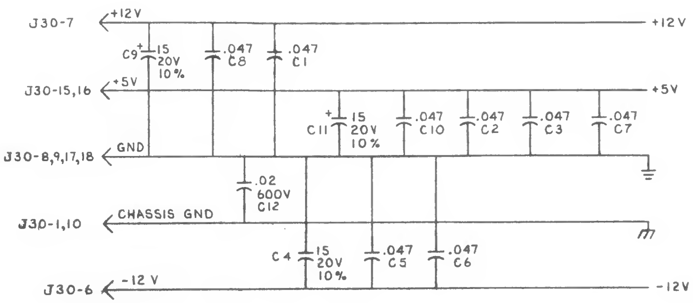
DWN C J Milne DATE 4/12/79
ISSUE DATE
SIZE D FSCM NO 96214
DRAWING NO 999951 FILMED
REV A
SCALE NONE
SHEET 2

DWG NO 2206530 SH 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN433855 R Garrigon 7-23-79	8-21-79	D Starnes
B	CN452307 (D) S.Dodson	2-5-80	S Dodson
C	CN452358 (C) J.E. MURANY	3-14-80	S Dodson

NOTES: UNLESS OTHERWISE SPECIFIED:

1. CAPACITOR VALUES ARE MICROFARADS
2. CAPACITORS ARE +80-20 PERCENT
3. RESISTOR VALUES ARE IN OHMS
4. RESISTORS ARE .25W, 5%

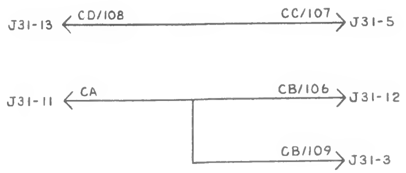


J30

16	+5
15	+5
7	+12
6	-12
18	SIGNAL GND
17	SIGNAL GND
9	SIGNAL GND
8	SIGNAL GND
1	CHASSIS GND
10	CHASSIS GND
2	NC
3	NC
4	NC
5	NC
11	NC
12	NC
13	NC
14	NC

J31

3	CF/109
4	CE/125
5	CC/107
6	BA/103
7	BB/104
8	CH/111
11	CA/105
12	CB/106
13	CD/108
14	SCA/118
15	SCF/119
1	TxDCURIN
10	TxDCURO
18	RxDCURIN
9	RxDCURO
2	NC
16	NC
17	KEY



REV STATUS OF SHEETS	REV	C	C		
	SH	1	2		

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2206532	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES: ANGLES ±1° 3 PLACE DECIMALS ± 010 2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D 1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.008 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN	JB Lancaster	2-28-79
CHK	D. Starnes	8-21-79
ENGR		8-24-79
APVD		8-24-79
QA		8/24/79
CONT		8-24-79
RLSE		8/24/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

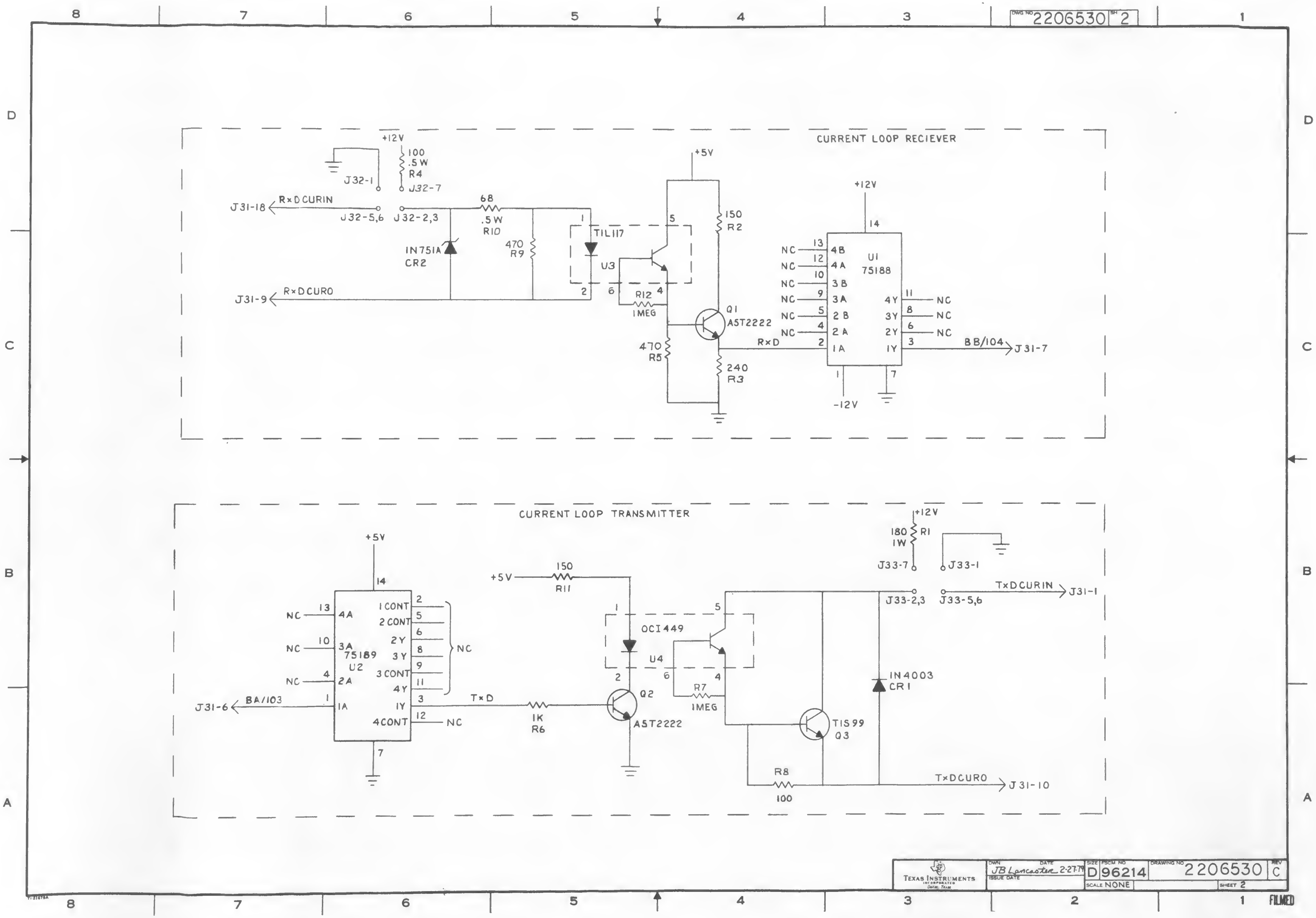
DIAGRAM, LOGIC, CURRENT LOOP

SIZE D FSCM NO 96214 DRAWING NO 2206530

SCALE NONE SHEET 1 OF 2

SEQ NO	IDENT	F-SPEC	ND	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

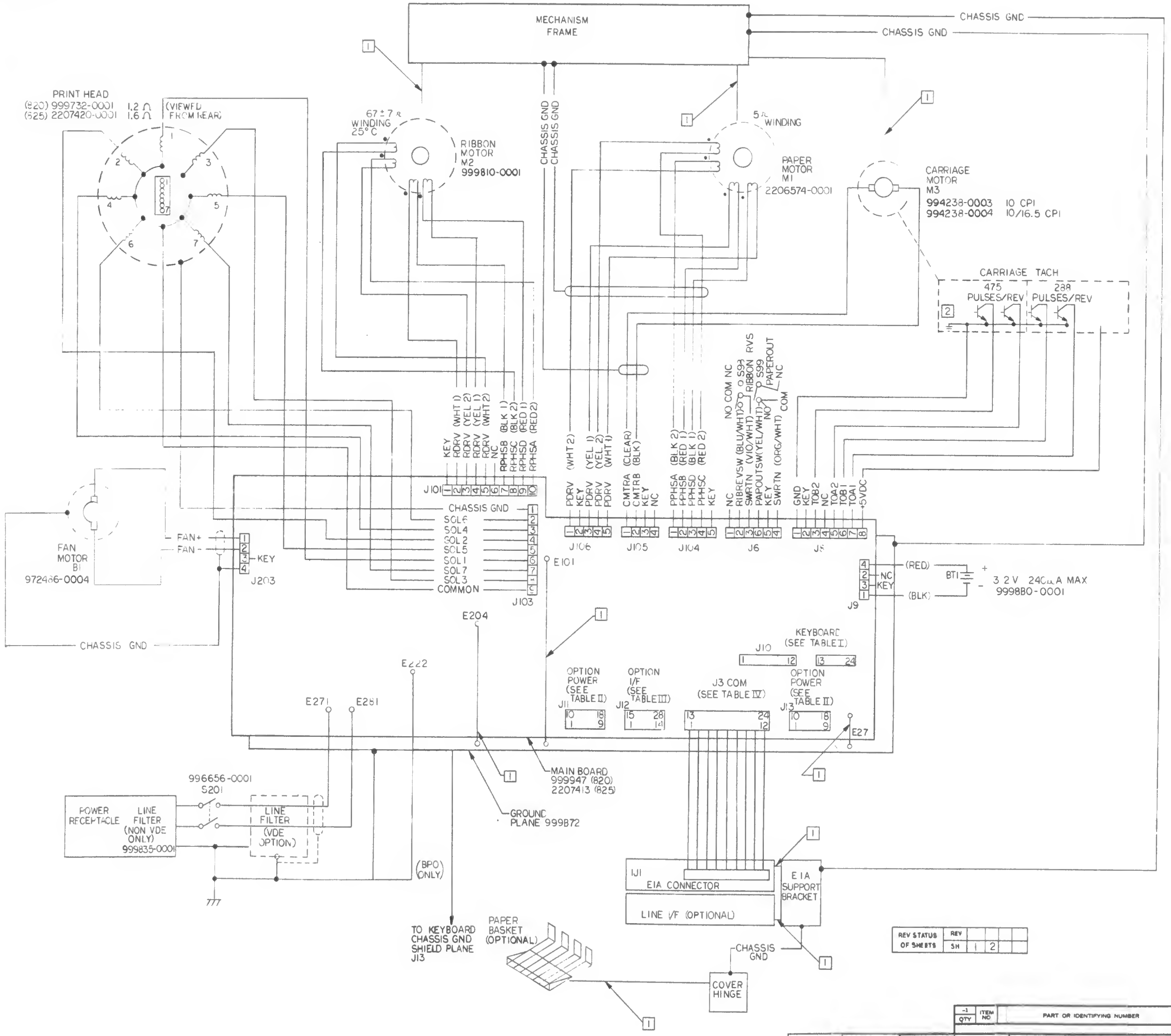
PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467


2206530 SH 2
CURRENT LOOP RECIEVER
+12V
100
.5W
R4
J32-1
J32-7
J31-18
RxDCURIN
J32-5,6
J32-2,3
68
.5W
R10
IN751A
CR2
470
R9
1
TIL117
U3
2
6
4
5
R12
1MEG
+5V
150
R2
Q1
AST2222
470
R5
240
R3
RxD
J31-9
RxDCURO
+12V
14
U1
75188
13 4B
12 4A
10 3B
9 3A
5 2B
4 2A
2 1A
NC
11 4Y
8 3Y
6 2Y
3 1Y
7
1
-12V
BB/104
J31-7
CURRENT LOOP TRANSMITTER
+5V
14
13 4A
10 3A
4 2A
1 1A
75189
U2
1 CONT 2
2 CONT 5
2Y 6
3Y 8
3 CONT 9
4Y 11
1Y 3
4CONT 12
7
NC
J31-6
BA/103
TxD
1K
R6
+5V
150
R11
1
2
OC1449
U4
6
4
5
R7
1MEG
Q2
AST2222
TIS99
Q3
R8
100
IN4003
CR1
+12V
180
1W
R1
J33-7
J33-1
J33-2,3
J33-5,6
TxDCURIN
J31-1
TxDCURO
J31-10
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN JB Lancaster
DATE 2-27-79
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2206530
REV C
SCALE NONE
SHEET 2
FILMED

NOTES: UNLESS OTHERWISE SPECIFIED:

1. DENOTES MECHANISM CONNECTION WHICH CONNECTS THE DEVICE ELECTRICALLY TO CHASSIS GROUND
2. THE 10 CPI CARRIAGE MOTOR TACH 994238-0003 DOES NOT HAVE THE 475 PPR TACH. TOB2 IS CONNECTED TO TOB1 AND TOA2 IS CONNECTED TO TOA1 INTERNAL TO THE TACH FOR THIS DASH NUMBER
3. UNUSED CONNECTION
4. J30 IS ON SMALL OPTION BOARD
J40 IS ON LARGE OPTION BOARD

REV	DESCRIPTION	DATE	APPROVED



REV STATUS OF SHEETS	REV				
	SH	1	2		

QTY -1	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON	NEXT ASSY	USED ON
2207408	8740	999979	8740
2207407	↓	999980	↓
2207406		999975	
2207415		999685	
2207409	↓	999686	↓
2207400	8740	999695	8740
APPLICATIONS		APPLICATION	

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
3 PLACE DECIMALS ± .010
2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.006 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN	V. Valazquez	10-9-79
CHK	Felipe	11/5/79
ENGR		11-20-79
APVD	David	11-20-79
QA		11/20/79
CONTR		
		12/4/79
		12/3/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

INTERCONNECTION DIAGRAM,
820/825

SIZE	FSCM NO	DRAWING NO
E	96214	2207416
SCALE NONE		SHEET 1 OF 2

DWG NO 2207416 SH 1

SEQ NO	IDENT	F/SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

NOTES: UNLESS OTHERWISE SPECIFIED:

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

TABLE I KEYBOARD CONNECTION

J10 MAIN BOARD	J1 KEY-BOARD	SIGNAL NAME
1	1	GND
2	2	GND
3	3	+5V
4	4	+5V
5	5	KBD1
6	6	R11
7	7	R10
8	8	R9
9	9	R8
10	10	R7
11	11	R6
12	12	R5
13	13	R4
14	14	KBD2
15	15	KBD0
16	16	KBD3
17	17	R3
18	18	R2
19	19	R1
20	20	R0
21	21	KBD4
22	22	KBD7
23	23	KBD5
24	24	KBD6

TABLE II OPTION POWER CONNECTION

J11,J13 (MAIN BOARD)	P11, P13 (CABLE)	P40, P30 (CABLE)	$\boxed{4}$ J40,J30 (OPTION BOARD)	SIGNAL NAME
1	1	9	9	GND
2	2	8	8	GND
3	3	7	7	+12V
4	4	6	6	-12V
5	5	5	5	BX1
6	6	4	4	/BX2
7	7	3	3	Z1
8	8	2	2	(KEY)
9	9	1	1	CHASSIS GND
10	10	18	18	GND
11	11	17	17	GND
12	12	16	16	+5V
13	13	15	15	+5V
14	14	14	14	PWR GOOD
15	15	13	13	$\boxed{3}$
16	16	12	12	(KEY)
17	17	11	11	(KEY)
18	18	10	10	CHASSIS GND

TABLE III OPTION I/F

J12 (MAIN BOARD)	P12 (CABLE)	P41 (CABLE)	J41 (OPTION BOARD)	SIGNAL NAME
1	1	14	14	BD4
2	2	13	13	BD5
3	3	12	12	BD6
4	4	11	11	(KEY)
5	5	10	10	BD7
6	6	9	9	$\boxed{3}$
7	7	8	8	$\boxed{3}$
8	8	7	7	/INT
9	9	6	6	IE3
10	10	5	5	BIE2
11	11	4	4	/BMI
12	12	3	3	BA3
13	13	2	2	BA4
14	14	1	1	BA5
15	15	28	28	BD0
16	16	27	27	BD1
17	17	26	26	BD2
18	18	25	25	BD3
19	19	24	24	BA0
20	20	23	23	BA1
21	21	22	22	BA2
22	22	21	21	BA7
23	23	20	20	BOSC
24	24	19	19	/BRD
25	25	18	18	/BWR
26	26	17	17	/BIORQ
27	27	16	16	/READ OPTION
28	28	15	15	BA6

TABLE IV COMMUNICATION

J3 (MAIN BOARD)	P3 (CABLE)	1J1 EIA CONN.	SIGNAL NAME
1	13		GND
2	14		
3	15		
4	16		
5	17		↓
6	18		GND
7	19		(KEY)
8	20		GND
9	21		
10	22		↓
11	23		GND
12	24	23	CH/111
13	1	4	CA/105
14	2	11	SCA/118
15	3	12	SCF/119
16	4	6	CC/107
17	5	22	CE/125
18	6	2	BA/103
19	7	7	AB/102
20	8	20	CD/108
21	9	3	BB/105
22	10	8	CF/109
23	11	5	CB/106
24	12	1	AA/101

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY | USED ON

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ± .010 2 PLACE DECIMALS ± .02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS .010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

.013 THRU .125 +.004 -.001	.126 THRU .250 +.005 -.001	.251 THRU .500 +.006 -.001
.501 THRU .750 +.008 -.001	.751 THRU 1.000 +.010 -.001	1.001 THRU 2.000 +.012 -.001

DWN 2 A STEPHOLE DATE 10-1-79

CHK

ENGR

APVD

QA

CONTR

RLSE

TEXAS INSTRUMENTS
INCORPORATED
Dallas Texas

INTERCONNECTION DIAGRAM,
820/825

SIZE E FSCM NO 96214 DRAWING NO 2207416

SCALE NO SHEET 2

DWG NO 2207416 SH 2

SEQ NO	IDENT	F SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

SES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS, SEE TI DRAWING 729467

NOTES: UNLESS OTHERWISE SPECIFIED:

1. RESISTANCE VALUES ARE IN OHMS
2. RESISTORS ARE ,.25 W, 5 PCT
3. CAPACITORS ARE ,+80-20 PCT
4. DIODES ARE 1N4002
5. FOR POWER AND GROUND PINS SEE TABLE ON SHEET 11

PROCESSOR SECTION REFERENCE DESIGNATORS		
FIRST USED	LAST USED	UNUSED
E1	E29	
R1	R36	
C1	C23	
CR1	CR3	
Q1	Q6	
U1	U45	

PRIMARY PWR SUPPLY REFERENCE DESIGNATORS		
FIRST USED	LAST USED	UNUSED
E250	E286	E270, E272 - E280, E283, E284
R250	R275	R268, R269, R271
C250	C264	C260, C261, C263
CR250	CR266	CR262
Q250	Q255	

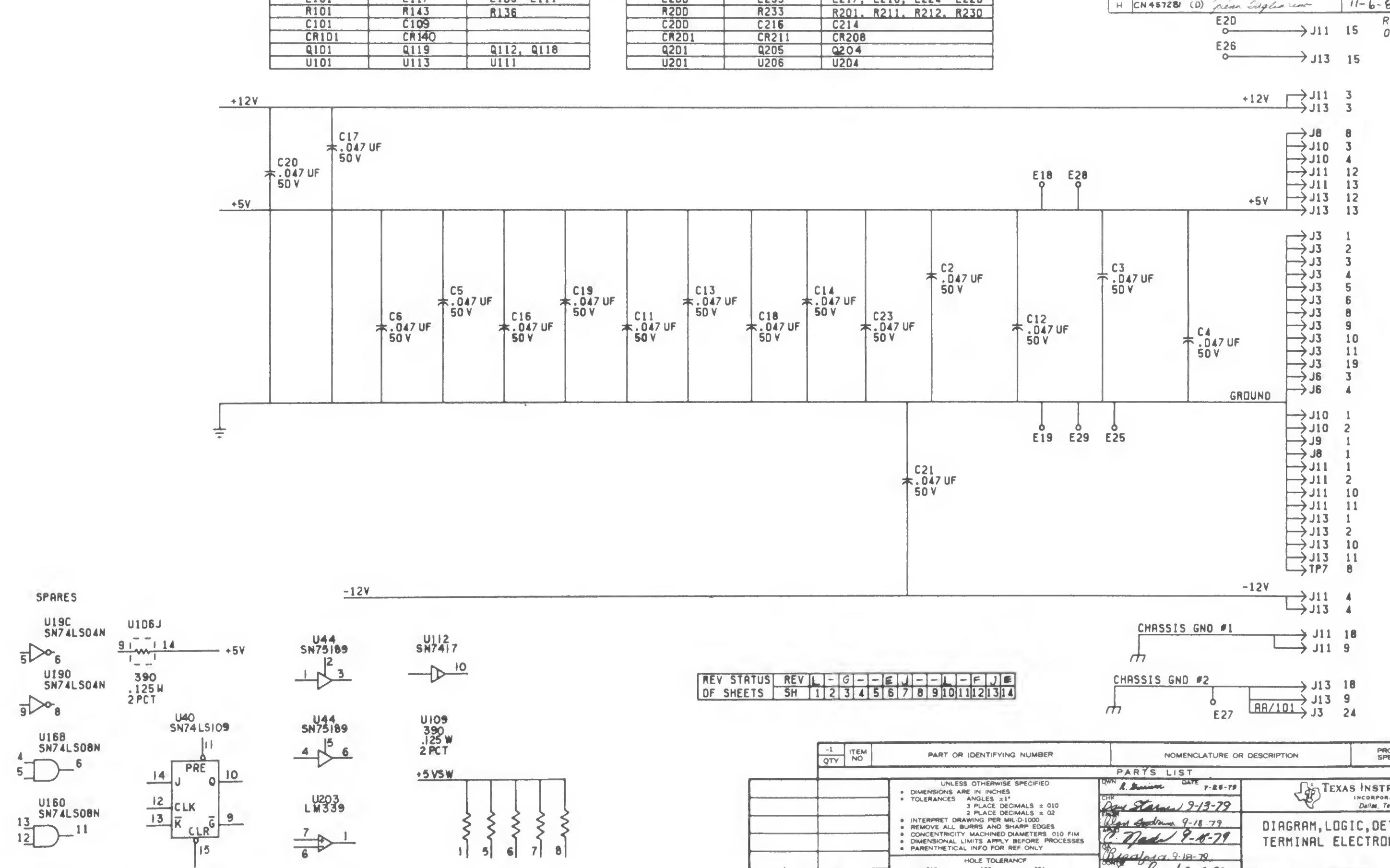
DRIVER REFERENCE DESIGNATORS		
FIRST USED	LAST USED	UNUSED
E101	E117	E105 - E111
R101	R143	R136
C101	C109	
CR101	CR140	
Q101	Q119	Q112, Q118
U101	U113	U111

SECONDARY PWR SUPPLY REFERENCE DESIGNATION		
FIRST USED	LAST USED	UNUSED
E200	E235	E217, E218, E224 - E226
R200	R233	R201, R211, R212, R230
C200	C216	C214
CR201	CR211	CR208
Q201	Q205	Q204
U201	U206	U204

DWG NO 2207411 SH 1

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	CN 434035 R Garrison	9-13-79	D Starnes
B	CN 434009 S. Stevens	9-13-79	D Starnes
C	CN454982(D) S Dodson	5-1-80	S Dodson
D	CN 458410 (D) J.E. Murray 1.) NO MICROFILM COPY AVAILABLE	6-20-80	S Dodson
E	CN 452392 (D) J.E. Murray 1.) NO MICROFILM COPY AVAILABLE.	6-20-80	S Dodson
F	CN 458450 (D) J.E. Murray	6-20-80	S Dodson
G	CN457279(D) G. Higginbotham	9-29-80	S Dodson
H	CN 457281 (D)	11-6-80	Dodson

REVISIONS CONT'D ON SH 10 (D-1)



REV STATUS	REV	L	-	G	-	-	E	J	-	-	L	-	F	J	E
OF SHEETS	SH	1	2	3	4	5	6	7	8	9	10	11	12	13	14

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU 125 + 004 - 001	126 THRU 250 + 005 - 001	251 THRU 500 + 006 - 001
501 THRU 750 + 008 - 001	751 THRU 1.000 + 010 - 001	1.001 THRU 2.000 + 012 - 001

NEXT ASSY	USED ON
2207413	8740

APPLICATION

DWN R. Garrison DATE 7-26-79
CHK Dave Starnes 9-13-79
ENGR Alan Andrews 9-18-79
APPD C. Nada 9-18-79
QA Bugalasa 9-18-79
CONTR Larry Bond 9-18-79
9/14/79

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

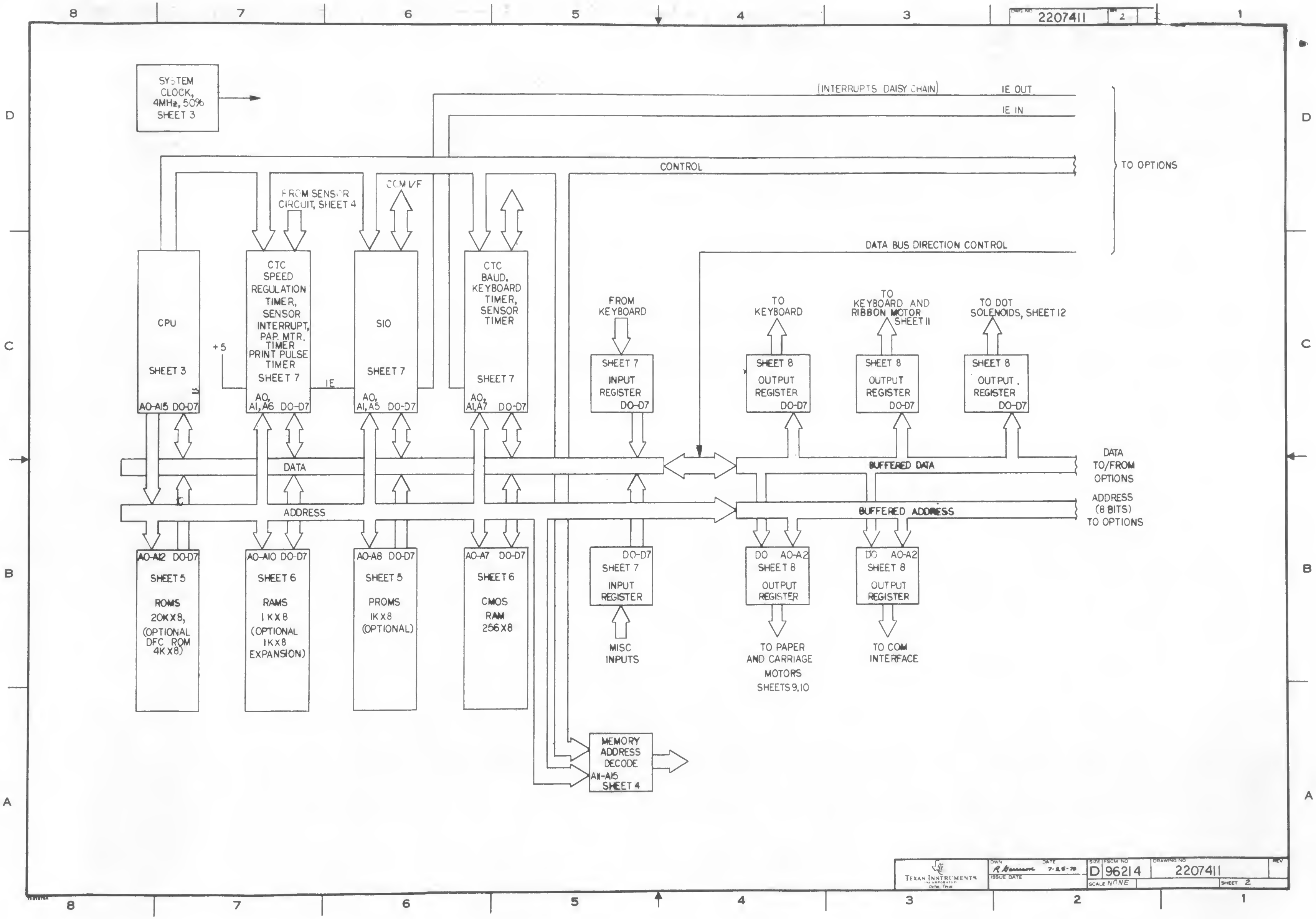
DIAGRAM, LOGIC, DETAILED
TERMINAL ELECTRONICS

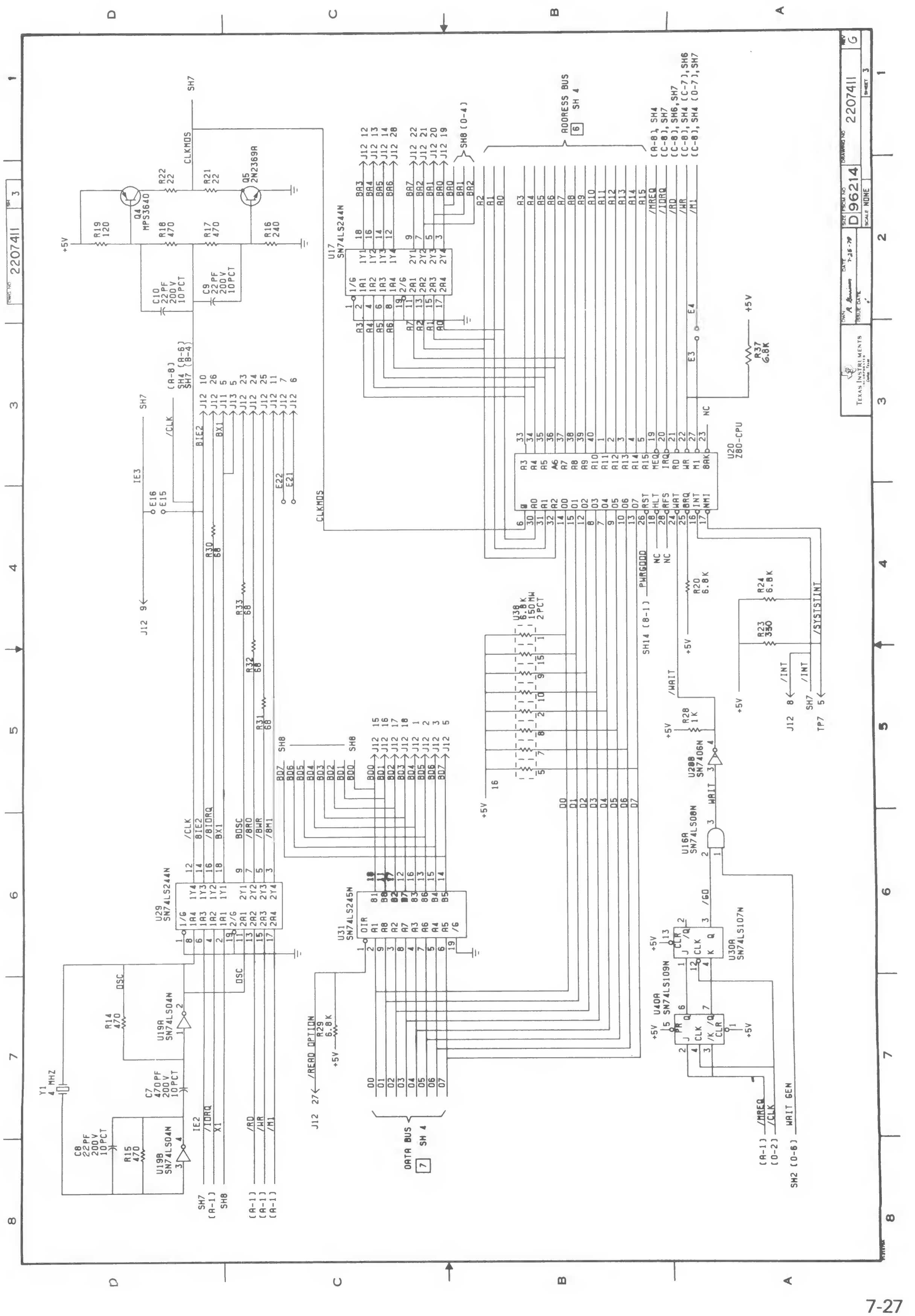
SIZE	FSCM NO	DRAWING NO
D	96214	2207411 FILMED

SCALE NONE SHEET 1 OF 14

SEQ NO	IDENT	P-SPEC	NO	ADDITIONAL	NOTES
	PROCESS			CLASSIFICATION	

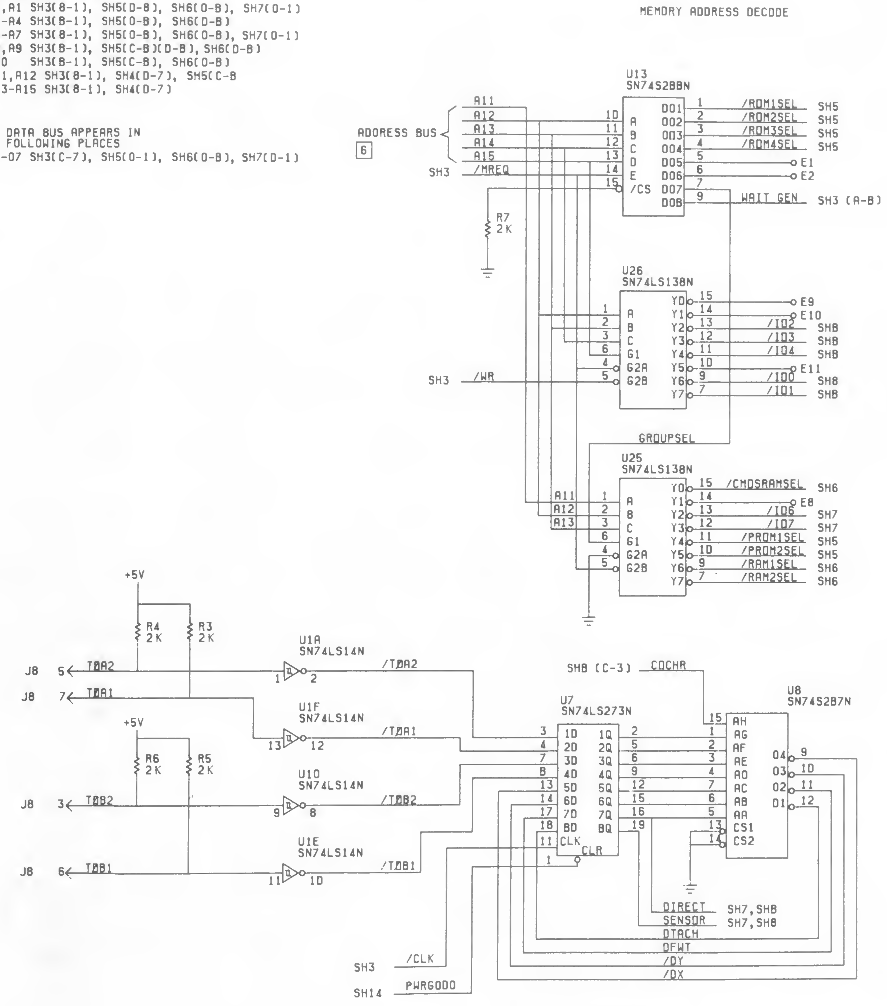
PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS. SEE TI DRAWING 729467


SYSTEM CLOCK, 4MHz, 50% SHEET 3
(INTERRUPTS DAISY CHAIN)
IE OUT
IE IN
CONTROL
TO OPTIONS
DATA BUS DIRECTION CONTROL
FROM SENSOR CIRCUIT, SHEET 4
COM I/F
CPU SHEET 3 A0-A15 D0-D7
CTC SPEED REGULATION TIMER, SENSOR INTERRUPT, PAP. MTR. TIMER PRINT PULSE TIMER SHEET 7 A0, A1, A6 D0-D7
+5
IE
SIO SHEET 7 A0, A1, A5 D0-D7
CTC BAUD, KEYBOARD TIMER, SENSOR TIMER SHEET 7 A0, A1, A7 D0-D7
FROM KEYBOARD
SHEET 7 INPUT REGISTER D0-D7
TO KEYBOARD
SHEET 8 OUTPUT REGISTER D0-D7
TO KEYBOARD AND RIBBON MOTOR SHEET 11
SHEET 8 OUTPUT REGISTER D0-D7
TO DOT SOLENOIDS, SHEET 12
SHEET 8 OUTPUT REGISTER D0-D7
DATA
ADDRESS
BUFFERED DATA
BUFFERED ADDRESS
DATA TO/FROM OPTIONS
ADDRESS (8 BITS) TO OPTIONS
A0-A12 D0-D7 SHEET 5 ROMS 20K X 8, (OPTIONAL DFC ROM 4K X 8)
A0-A10 D0-D7 SHEET 6 RAMS 1K X 8 (OPTIONAL 1K X 8 EXPANSION)
A0-A8 D0-D7 SHEET 5 PROMS 1K X 8 (OPTIONAL)
A0-A7 D0-D7 SHEET 6 CMOS RAM 256 X 8
D0-D7 SHEET 7 INPUT REGISTER
MISC INPUTS
D0 A0-A2 SHEET 8 OUTPUT REGISTER
TO PAPER AND CARRIAGE MOTORS SHEETS 9, 10
D0 A0-A2 SHEET 8 OUTPUT REGISTER
TO COM INTERFACE
MEMORY ADDRESS DECODE A11-A15 SHEET 4
8
7
6
5
4
3
2
1
D
C
B
A
2207411
2
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN R Harrison
DATE 7-25-78
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2207411
REV
SCALE NONE
SHEET 2


U20 Z80-CPU
U17 SN74LS244N
U29 SN74LS244N
U31 SN74LS245N
U19A SN74LS04N
U19B SN74LS04N
U16A SN74LS08N
U20B SN74LS06N
U30A SN74LS107N
U40A SN74LS109N
U38 6.8K 150MW 2PCT
Q4 MPS3640
Q5 2N2369A
Y1 4 MHZ
CLKMOS
ADDRESS BUS SH 4
DATA BUS SH 4
/READ OPTION
PWRGOOD
/SYSTINT
/WAIT
WAIT GEN
/MREQ
/IORQ
/RD
/WR
/M1
/INT
R19 120
R18 470
R17 470
R16 240
R22 22
R21 22
C10 22PF 200V 10PCT
C9 22PF 200V 10PCT
C7 470PF 200V 10PCT
C8 22PF 200V 10PCT
R14 470
R15 470
R29 6.8K
R20 6.8K
R23 330
R24 6.8K
R28 1K
R37 6.8K
R30 68
R31 68
R32 68
R33 68
Texas Instruments
2207411
D96214
SCALE NONE
SHEET 3
G

6 THE ADDRESS BUS APPEARS IN THE FOLLOWING PLACES
A0,A1 SH3(8-1), SH5(D-8), SH6(D-B), SH7(D-1)
A2-A4 SH3(B-1), SH5(D-B), SH6(D-B)
A5-A7 SH3(B-1), SH5(D-B), SH6(D-B), SH7(D-1)
A8,A9 SH3(B-1), SH5(C-B)(D-B), SH6(D-B)
A10 SH3(B-1), SH5(C-B), SH6(D-B)
A11,A12 SH3(8-1), SH4(D-7), SH5(C-B
A13-A15 SH3(8-1), SH4(D-7)

7 THE DATA BUS APPEARS IN THE FOLLOWING PLACES
D0-D7 SH3(C-7), SH5(D-1), SH6(D-B), SH7(D-1)



U13 ROM DECODE 74S288

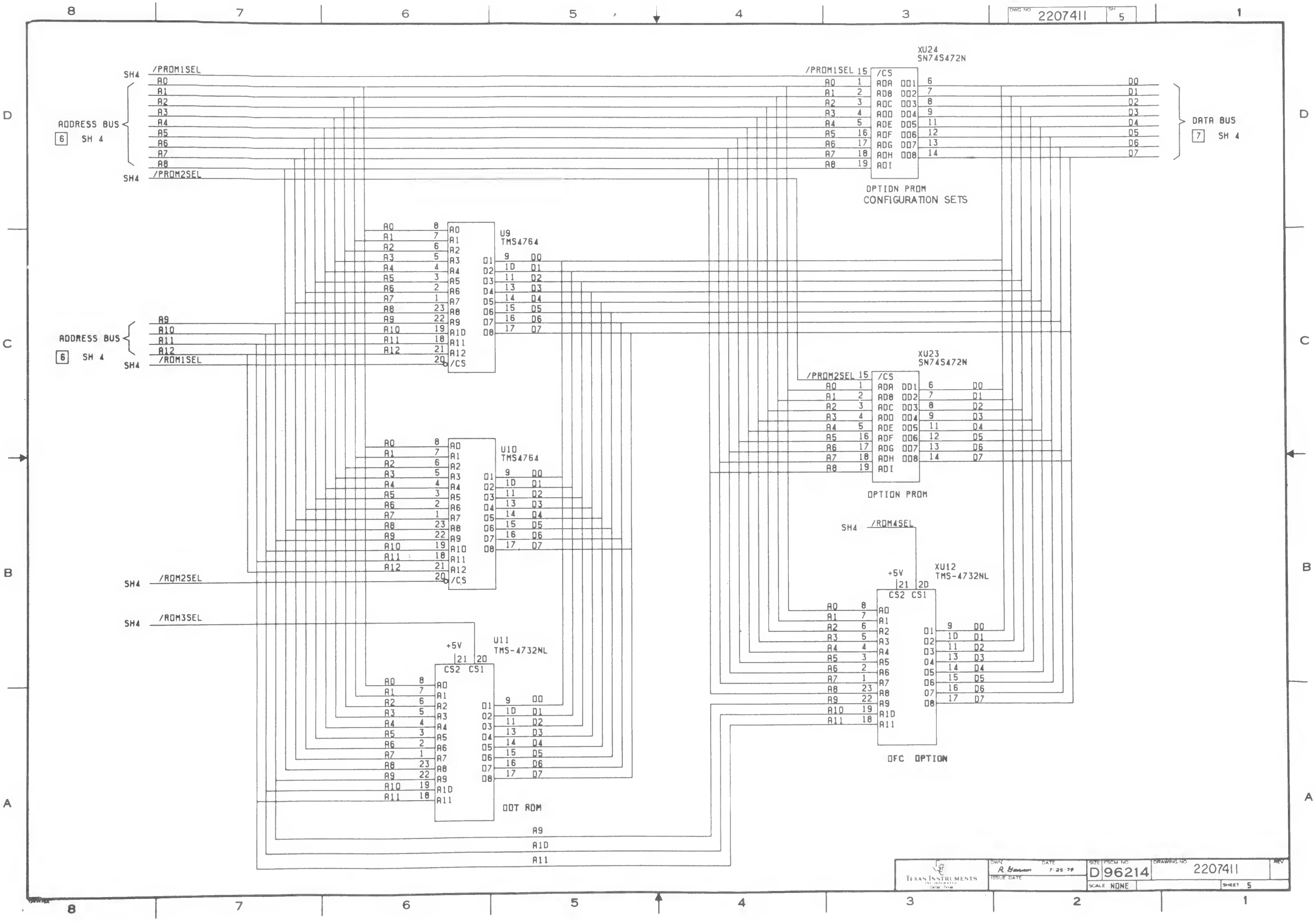
E	D	C	B	A	D8	D7	D6	D5	D4	D3	D2	D1	COMMENTS
0	0	0	0	0	1	0	0	0	1	1	1	0	ROM 1
0	0	0	0	1	1	0	0	0	1	1	1	0	
0	0	0	1	0	1	0	0	0	1	1	0	1	ROM 2
0	0	0	1	1	1	0	0	0	1	1	0	1	
0	0	1	0	0	1	0	0	0	1	0	1	1	ROM 3 (OFC)
0	0	1	0	1	1	0	0	0	0	1	1	1	ROM 4 (DOTS)
0	0	1	1	0	0	1	0	0	1	1	1	1	PROM 1, PROM 2
0	0	1	1	1	0	1	0	0	1	1	1	1	GROUP RAM 1, RAM 2
0	1	0	0	0	1	1	0	0	1	1	1	1	SEL CMOS, ------
0	1	0	0	1	0	1	0	0	1	1	1	1	KB COL IN, BITS IN
0	1	0	1	0	0	0	0	0	1	1	1	1	ID 2 (KB ROWS LS)
0	1	0	1	1	0	0	0	0	1	1	1	1	ID 3 (KB ROWS MS)
0	1	1	0	0	0	0	0	0	1	1	1	1	ID 4 (DOTS)
0	1	1	0	1	0	0	0	0	1	1	1	1	
0	1	1	1	0	0	0	0	0	1	1	1	1	ID 0 (BELL,ETC)
0	1	1	1	1	0	0	0	0	1	1	1	1	ID 1 (PAPER,CARR)
1	0	0	0	0	0	0	0	0	1	1	1	1	
1	0	0	0	1	0	0	0	0	1	1	1	1	
1	0	0	1	0	0	0	0	0	1	1	1	1	
1	0	0	1	1	0	0	0	0	1	1	1	1	
1	0	1	0	0	0	0	0	0	1	1	1	1	
1	0	1	0	1	0	0	0	0	1	1	1	1	
1	0	1	1	0	0	1	0	0	1	1	1	1	GROUP SEL
1	0	1	1	1	0	1	0	0	1	1	1	1	
1	1	0	0	0	0	1	0	0	1	1	1	1	
1	1	0	0	1	0	1	0	0	1	1	1	1	
1	1	0	1	0	0	0	0	0	1	1	1	1	
1	1	0	1	1	0	0	0	0	1	1	1	1	
1	1	1	0	0	0	0	0	0	1	1	1	1	
1	1	1	0	1	0	0	0	0	1	1	1	1	
1	1	1	1	0	0	0	0	0	1	1	1	1	
1	1	1	1	1	0	0	0	0	1	1	1	1	

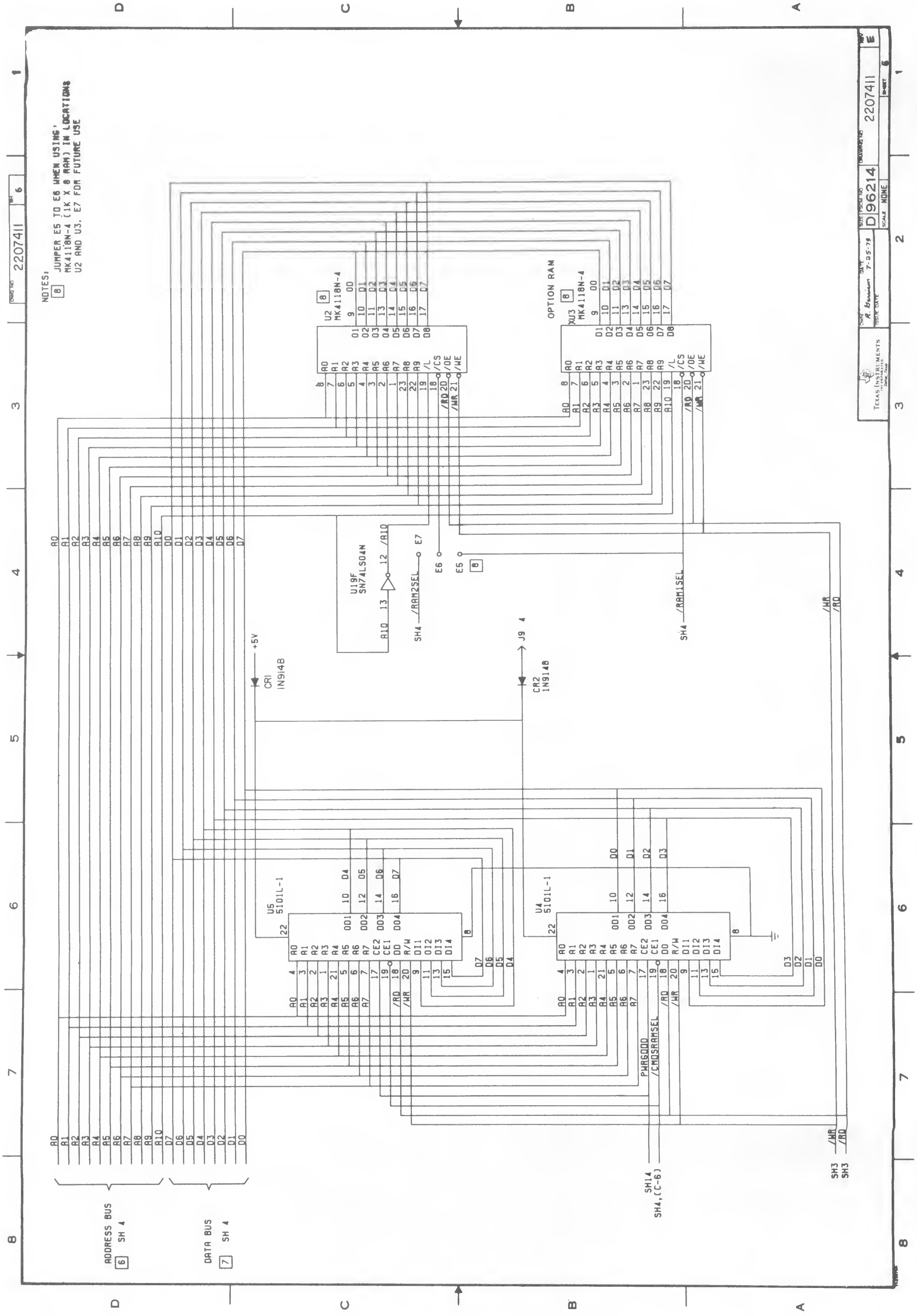
U8 TACH STATE 74S287 D4 D3 D2 D1

HGFED \ CBA	000	001	010	011	100	101	110	111
00000	0000	0010	0000	0010	1100	1110	1100	1110
00001	0000	0010	0000	0010	1100	1110	1100	1110
00010	0000	0010	0000	0010	1100	1110	1100	1110
00011	0000	0010	0000	0010	1100	1110	1100	1110
00100	0100	0110	0100	0110	0100	0110	0111	0111
00101	1001	1001	1000	1010	1000	1010	1000	1010
00110	0100	0110	0100	0110	0100	0110	0111	0111
00111	1001	1001	1000	1010	1000	1010	1000	1010
01000	0000	0010	0000	0010	1100	1110	1100	1110
01001	0000	0010	0000	0010	1100	1110	1100	1110
01010	0000	0010	0000	0010	1100	1110	1100	1110
01011	0000	0010	0000	0010	1100	1110	1100	1110
01100	0100	0110	0100	0110	0100	0110	0111	0111
01101	1001	1001	1000	1010	1000	1010	1000	1010
01110	0100	0110	0100	0110	0100	0110	0111	0111
01111	1001	1001	1000	1010	1000	1010	1000	1010
10000	0000	0010	0000	0010	1100	1110	1100	1110
10001	0000	0010	0000	0010	1100	1110	1100	1110
10011	0000	0010	0000	0010	1100	1110	1100	1110
10100	0000	0010	0000	0010	1100	1110	1100	1110
10101	0000	0010	0000	0010	1100	1110	1100	1110
10110	0000	0010	0000	0010	1100	1110	1100	1110
10111	0000	0010	0000	0010	1100	1110	1100	1110
11000	0100	0110	0100	0110	0100	0110	0111	0111
11001	0100	0110	0100	0110	0100	0110	0111	0111
11010	1001	1001	1000	1010	1000	1010	1000	1010
11011	1001	1001	1000	1010	1000	1010	1000	1010
11100	0100	0110	0100	0110	0100	0110	0111	0111
11101	0100	0110	0100	0110	0100	0110	0111	0111
11110	1001	1001	1000	1010	1000	1010	1000	1010
11111	1001	1001	1000	1010	1000	1010	1000	1010

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

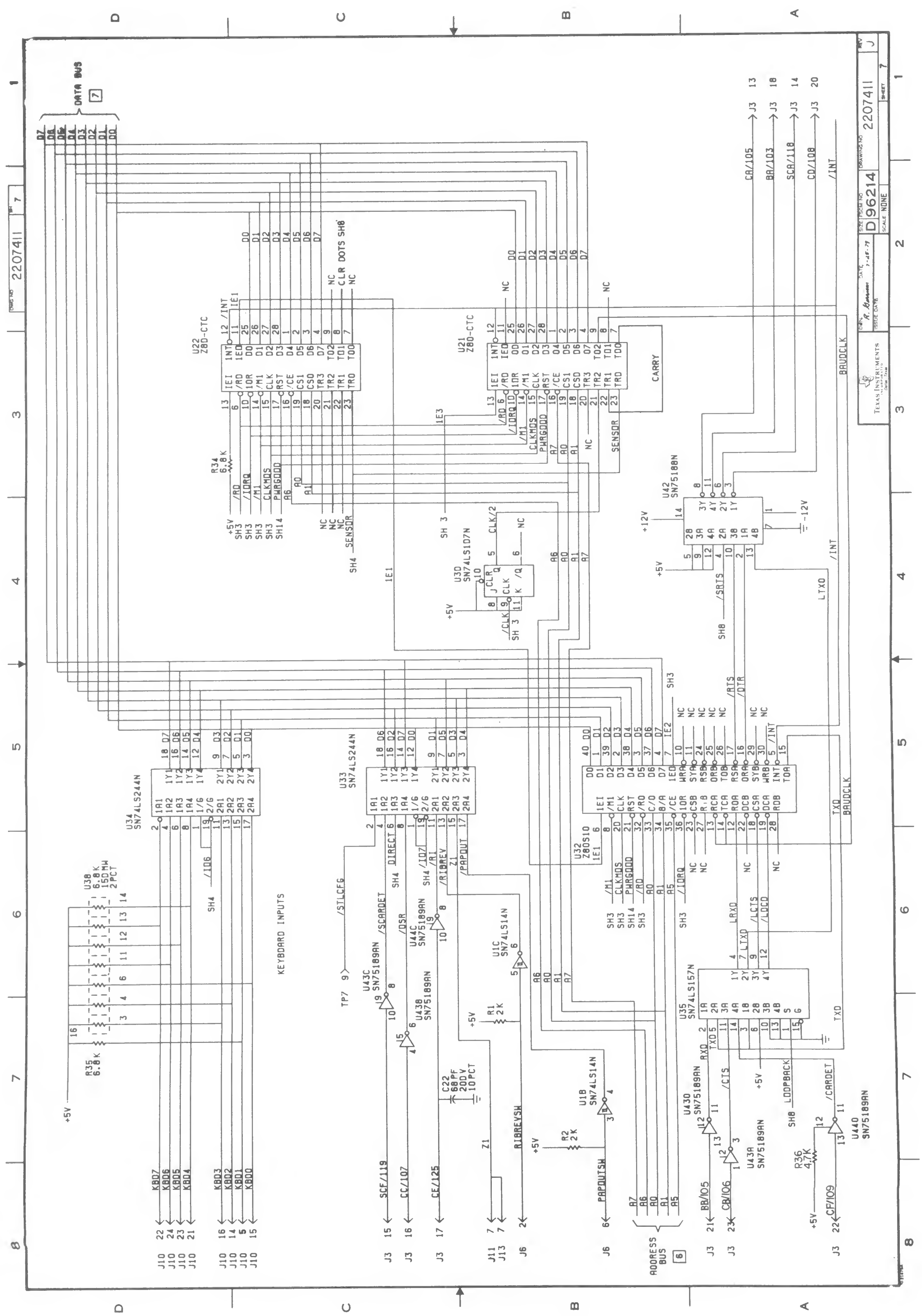
DWN R. Garrison DATE 7-25-79
ISSUE DATE
SIZE D FSCM NO 96214 DRAWING NO 2207411 REV
SCALE NONE SHEET 4

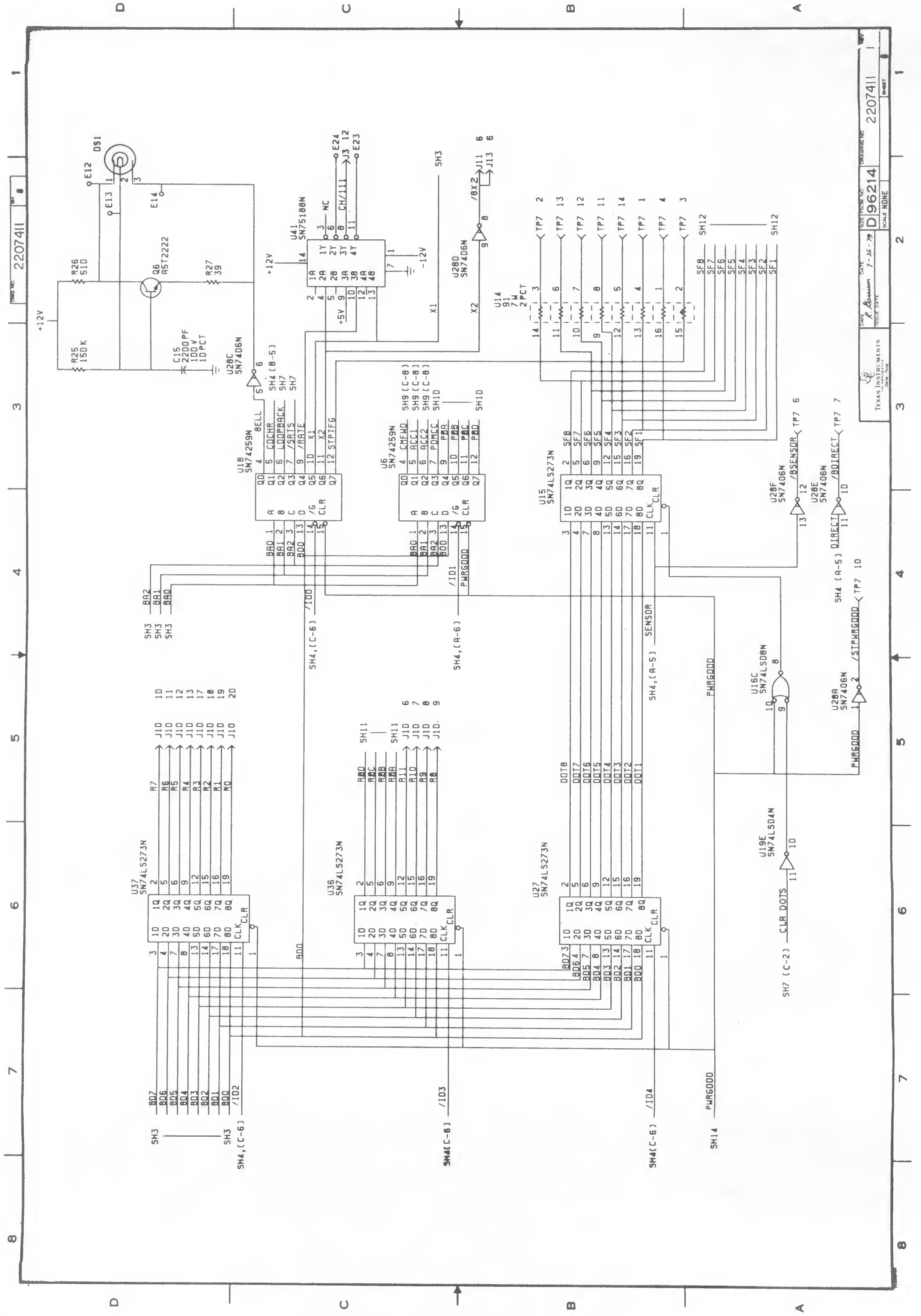

2207411 SH 5
XU24 SN74S472N
OPTION PROM CONFIGURATION SETS
/PROM1SEL 15 /CS
ADA ADB ADC ADD ADE ADF ADG ADH ADI
DD1 DD2 DD3 DD4 DD5 DD6 DD7 DD8
DATA BUS 7 SH 4
D0 D1 D2 D3 D4 D5 D6 D7
ADDRESS BUS 6 SH 4
SH4 /PROM1SEL
A0 A1 A2 A3 A4 A5 A6 A7 A8
SH4 /PROM2SEL
A9 A10 A11 A12
SH4 /ROM1SEL
U9 TMS4764
U10 TMS4764
/CS
SH4 /ROM2SEL
SH4 /ROM3SEL
U11 TMS-4732NL
+5V
CS2 CS1
DOT ROM
XU23 SN74S472N
/PROM2SEL
OPTION PROM
SH4 /ROM4SEL
XU12 TMS-4732NL
DFC OPTION
A9
A10
A11
TEXAS INSTRUMENTS
DWN R. Brown
DATE 7-25-79
ISSUE DATE
SIZE FSCM NO D 96214
DRAWING NO 2207411
REV
SCALE NONE
SHEET 5
A B C D
1 2 3 4 5 6 7 8



NOTES:
[8] JUMPER E5 TO E6 WHEN USING MK4118N-4 (1K X 8 RAM) IN LOCATIONS U2 AND U3. E7 FOR FUTURE USE

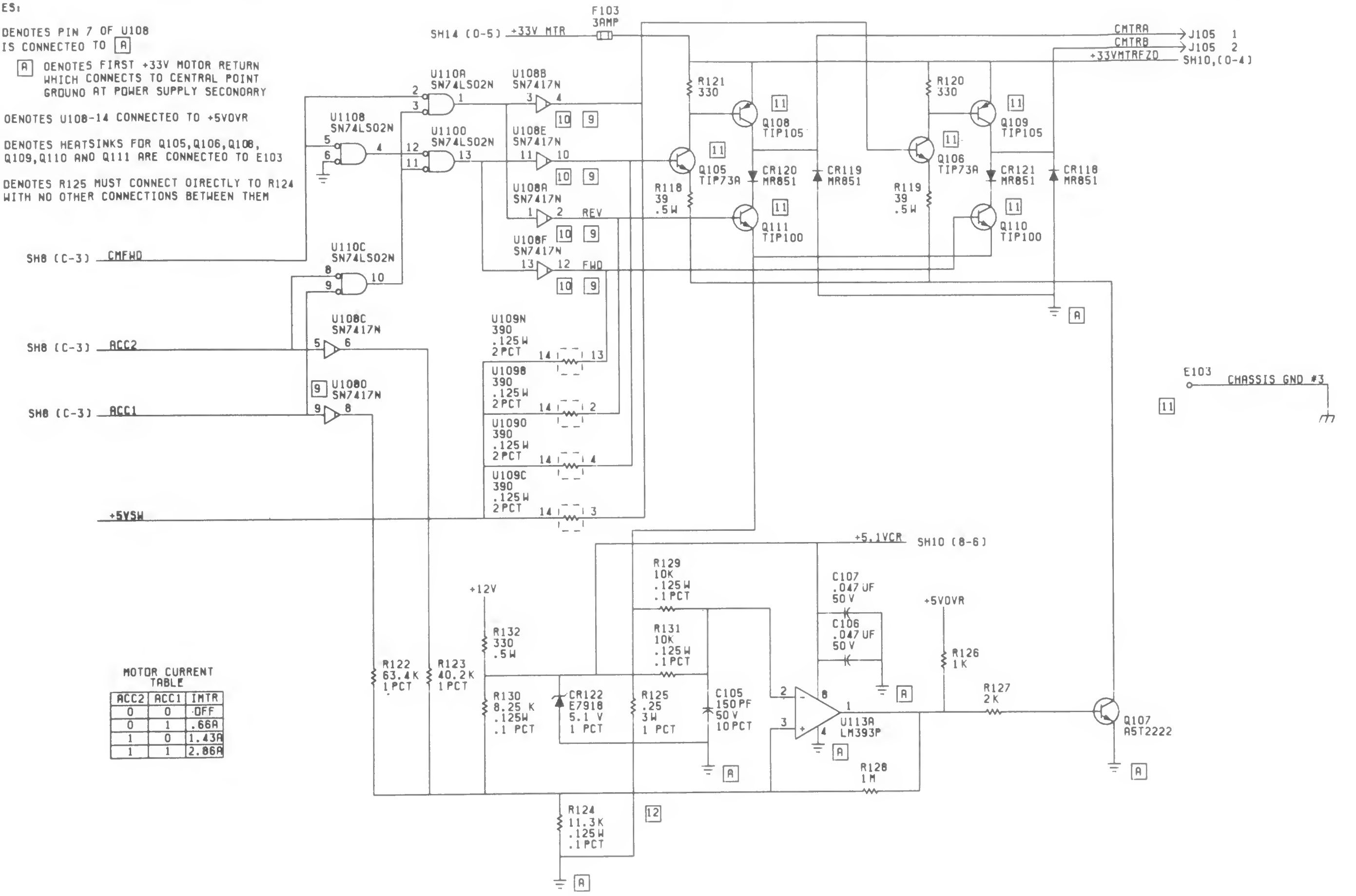
TEXAS INSTRUMENTS
DWN R. Bannon DATE 7-25-79
SIZE D FSCM NO 96214 DRAWING NO 2207411
SCALE NONE SHEET 6 REV E


DATA BUS 7
D7 D6 D5 D4 D3 D2 D1 D0
U22 Z80-CTC
U21 Z80-CTC
CLR DOTS SH8
CARRY
SENSOR
R34 6.8K
U30 SN74LS107N
CLK/2
U42 SN75188N
+12V
-12V
CA/105 J3 13
BA/103 J3 18
SCR/118 J3 14
CD/108 J3 20
/INT
BAUDCLK
LTXD
/SRTS
/RTS
/DTR
U34 SN74LS244N
U33 SN74LS244N
U32 Z80SIO
U35 SN74LS157N
U38 6.8K 150MW 2PCT
R35 6.8K
KEYBOARD INPUTS
/IO6
/STLCFG
/SCARDET
/DSR
DIRECT
/IO7
/R1
/RIBREV
Z1
/PAPOUT
U43C SN75189AN
U43B SN75189AN
U44C SN75189AN
U1C SN74LS14N
U1B SN74LS14N
R1 2K
R2 2K
C22 68PF 200V 10PCT
TP7
U43D SN75189AN
U43A SN75189AN
U44D SN75189AN
R36 4.7K
RXD
TXD
/CTS
LOOPBACK
/CARDET
LRXD
/LCTS
/LDCD
KBD7 KBD6 KBD5 KBD4 KBD3 KBD2 KBD1 KBD0
J10 22 24 23 21 16 14 5 15
SCF/119 J3 15
CC/107 J3 16
CE/125 J3 17
J11 7
J13 7
RIBREVSW J6 2
PAPOUTSW J6 6
ADDRESS BUS 6
A7 A6 A0 A1 A5
BB/105 J3 21
CB/106 J3 23
CF/109 J3 22
TEXAS INSTRUMENTS
D96214
2207411
SCALE NONE
SHEET 7
REV J
R. Benson 7-25-79


2207411
D 96214
SCALE NONE
7-26-79
TEXAS INSTRUMENTS
DS1
E12
E13
E14
R26 510
R25 150K
R27 39
Q6 A5T2222
C15 2200PF 100V 10PCT
+12V
U28C SN7406N
U41 SN75188N
NC
CH/111
E24
E23
J3 12
-12V
+5V
U28D SN7406N
/BX2
J11 6
J13 6
SH3
X1
X2
U18 SN74259N
BELL
COCHR
LOOPBACK
/SRTS
/RATE
STPTFG
SH4 (B-5)
SH7
U6 SN74259N
CMFHD
ACC1
ACC2
PDMCC
SH9 (C-8)
SH10
U14 91 7W 2PCT
TP7
SH12
SF1
SF2
SF3
SF4
SF5
SF6
SF7
SF8
U15 SN74LS273N
U28F SN7406N
/BSENSOR
U28E SN7406N
/BDIRECT
DIRECT
SH4 (A-5)
SENSOR
/STPWRGOOD
U16C SN74LS08N
U28A SN7406N
PWRGOOD
BA0
BA1
BA2
BD0
/ID0
/ID1
SH4,(C-6)
SH4,(A-6)
U37 SN74LS273N
R0
R1
R2
R3
R4
R5
R6
R7
J10
U36 SN74LS273N
SH11
R8
R9
R10
R11
U27 SN74LS273N
DOT1
DOT2
DOT3
DOT4
DOT5
DOT6
DOT7
DOT8
U19E SN74LS04N
CLR DOTS
SH7 (C-2)
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
/ID2
/ID3
/ID4
SH4(C-6)
SH14

NOTES:

- 9 DENOTES PIN 7 OF U108 IS CONNECTED TO A
  - A DENOTES FIRST +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINT GROUND AT POWER SUPPLY SECONDARY
- 10 DENOTES U108-14 CONNECTED TO +5VOVR
- 11 DENOTES HEATSINKS FOR Q105, Q106, Q108, Q109, Q110 AND Q111 ARE CONNECTED TO E103
- 12 DENOTES R125 MUST CONNECT DIRECTLY TO R124 WITH NO OTHER CONNECTIONS BETWEEN THEM



MOTOR CURRENT TABLE

ACC2	ACC1	IMTR
0	0	OFF
0	1	.66A
1	0	1.43A
1	1	2.86A

CARRIAGE MOTOR DRIVE

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

DWN R. Garrison DATE 7-26-79
ISSUE DATE
SIZE D FSCM NO 96214 DRAWING NO 2207411 REV
SCALE NONE SHEET 9

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
J	CN477280 (D) M Kuehn	2/10/81	D K Anderson
K	CN466133 (C)	4-24-81	
L	CN 466138 (D)	[illegible]-17-81	

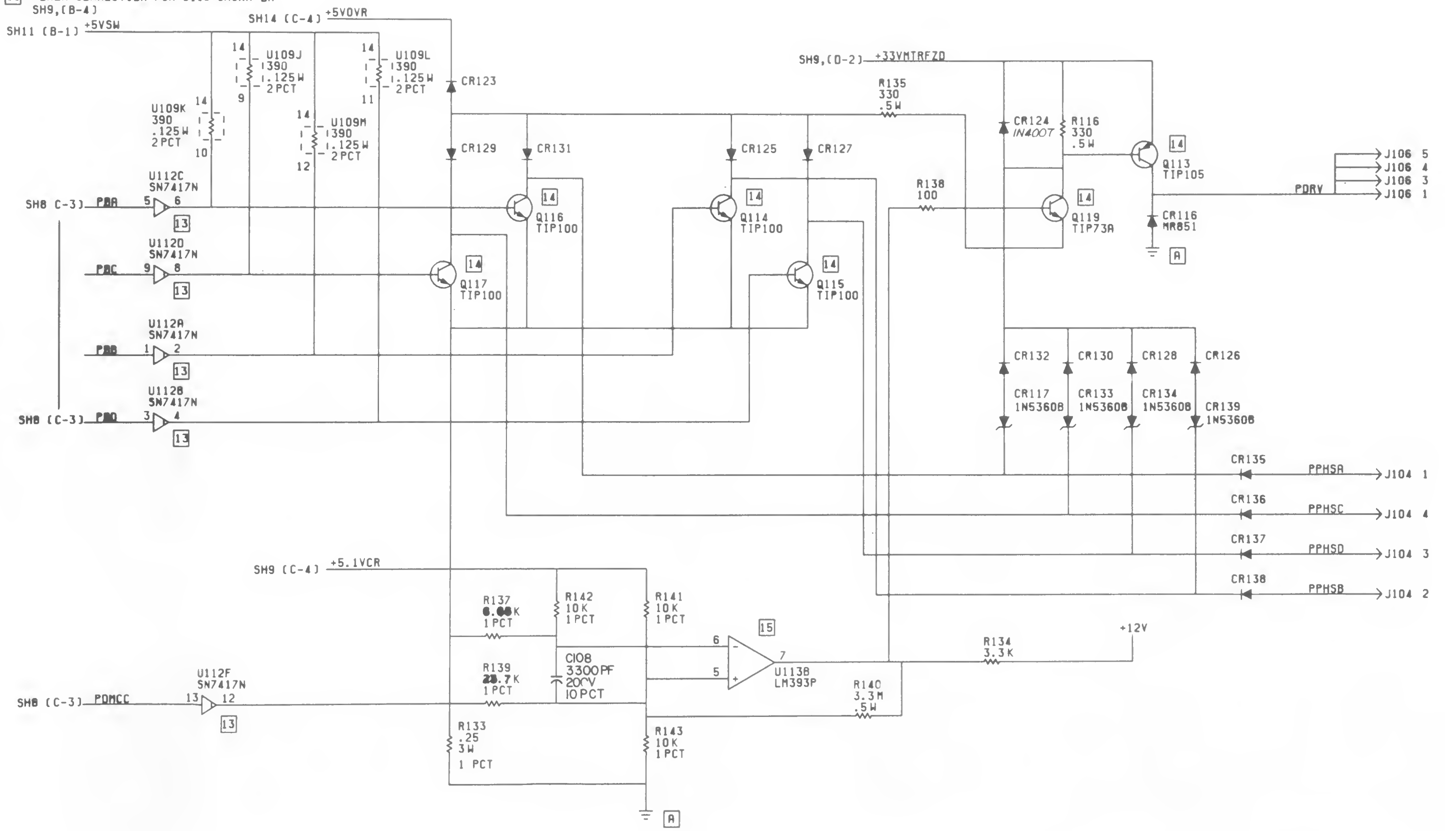
NOTES:

13 U112-14 IS CONNECTED TO +5VOVR
~~U112-7 IS CONNECTED TO A~~

A DENOTES FIRST +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINTS GROUND AT POWER SUPPLY SECONDARY

14 HEATSINKS FOR Q113,Q114,Q115,Q116, Q117 AND Q119 ARE CONNECTED TO E102 SH12,(C-4)

15 POWER CONNECTION FOR U113 SHOWN ON SH9,(B-4)

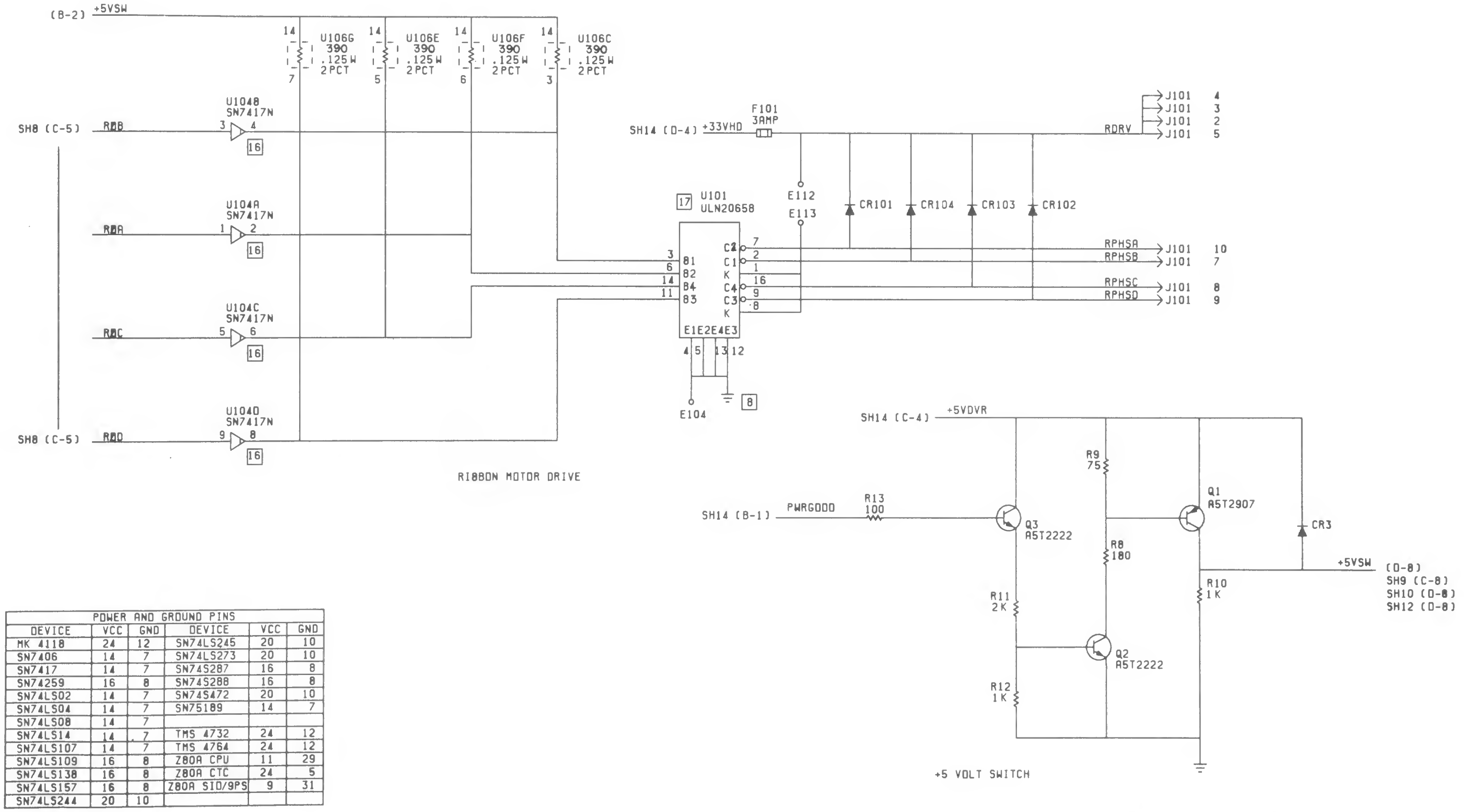


PAPER MOTOR DRIVE

TEXAS INSTRUMENTS INCORPORATED Dallas Texas	DWN R. Gassman	DATE 7-26-79	SIZE D	FSCM NO 96214	DRAWING NO 2207411	REV L
	ISSUE DATE		SCALE NONE		SHEET 10	

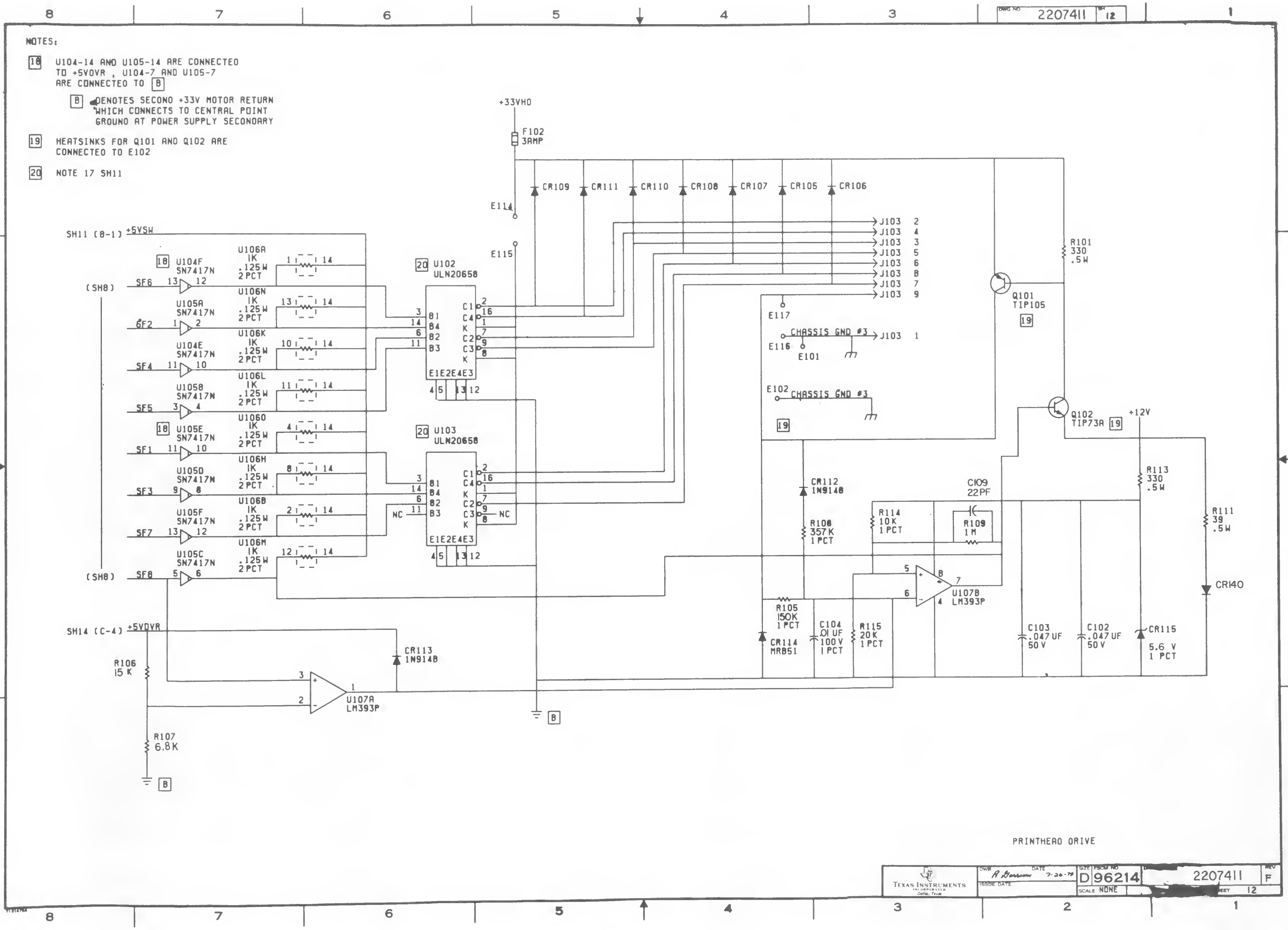
NOTES:

- 16 DENOTES U104-14 IS CONNECTED TO +5VDVR U104-7 IS CONNECTED TO 8
  - 8 DENOTES SECOND +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINT GROUND AT POWER SUPPLY SECONDARY
- 17 DENOTES HEATSINKS ON U101,U102,AND U103 ARE CONNECTED TO E104



POWER AND GROUND PINS					
DEVICE	VCC	GND	DEVICE	VCC	GND
MK 4118	24	12	SN74LS245	20	10
SN7406	14	7	SN74LS273	20	10
SN7417	14	7	SN74S287	16	8
SN74259	16	8	SN74S288	16	8
SN74LS02	14	7	SN74S472	20	10
SN74LS04	14	7	SN75189	14	7
SN74LS08	14	7			
SN74LS14	14	7	TMS 4732	24	12
SN74LS107	14	7	TMS 4764	24	12
SN74LS109	16	8	Z80A CPU	11	29
SN74LS138	16	8	Z80A CTC	24	5
SN74LS157	16	8	Z80A SIO/9PS	9	31
SN74LS244	20	10			

TEXAS INSTRUMENTS INCORPORATED Dallas Texas	DWN R. Garrison DATE 7-26-79 ISSUE DATE	SIZE D FSCM NO 96214 SCALE NONE	DRAWING NO 2207411 SHEET



NOTES:

18 U104-14 AND U105-14 ARE CONNECTED TO +5VOVR , U104-7 AND U105-7 ARE CONNECTED TO B

B DENOTES SECOND +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINT GROUND AT POWER SUPPLY SECONDARY

19 HEATSINKS FOR Q101 AND Q102 ARE CONNECTED TO E102

20 NOTE 17 SH11

PRINTHEAD DRIVE

DWG NO 2207411 SH 13

NOTES:

21 THERMISTOR R274,R275 PRESENT ON 230 VAC VERSIONS ONLY

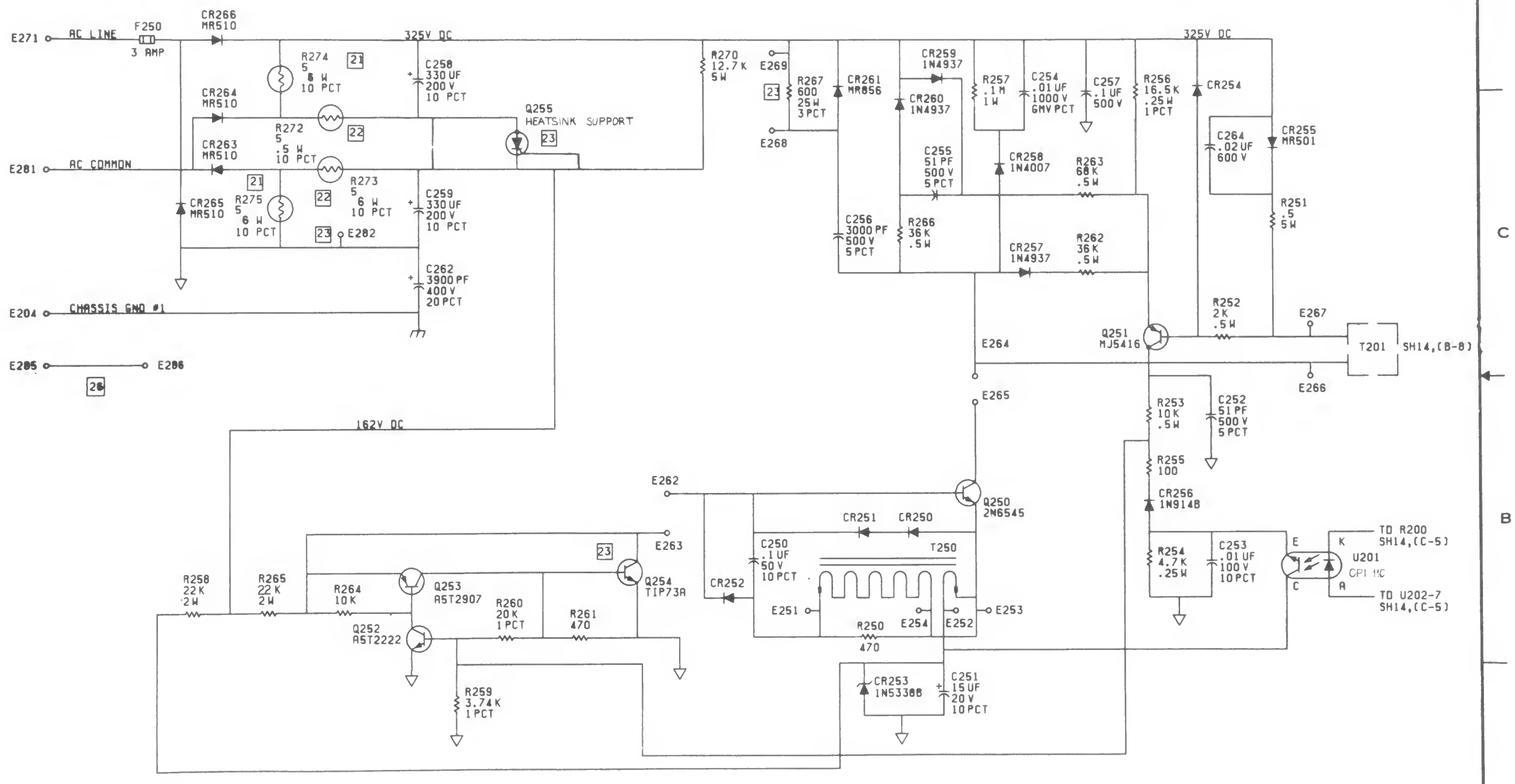
22 THERMISTOR R272,R273 PRESENT ON 115 VAC VERSIONS ONLY

23 HEATSINK CONNECTED TO E282

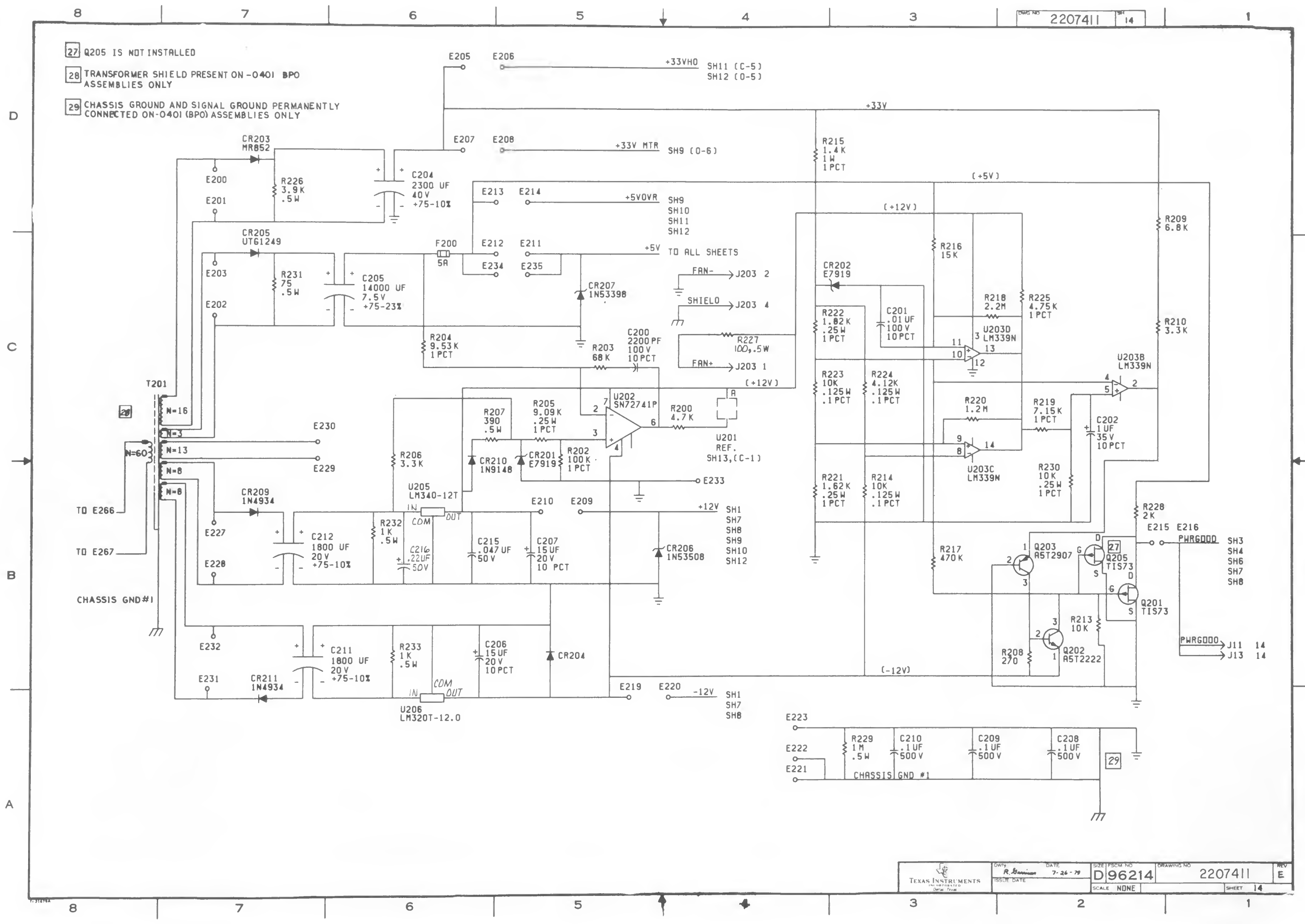
24 ▽ DENOTES 325V DC RETURN

~~25 THE HEATSINK FOR Q250 IS NOT INSULATED FROM THE TRANSISTOR~~

26 JUMPER PRESENT ON 230 VAC VERSIONS ONLY



TEXAS INSTRUMENTS INCORPORATED Dallas Texas	DWN A. Garrison DATE 7-26-79	SIZE D	FSCM NO 96214	DRAWING NO 2207411	REV J
	ISSUE DATE	SCALE NONE			SHEET 13


27 Q205 IS NOT INSTALLED
28 TRANSFORMER SHIELD PRESENT ON -0401 BPO ASSEMBLIES ONLY
29 CHASSIS GROUND AND SIGNAL GROUND PERMANENTLY CONNECTED ON-0401 (BPO) ASSEMBLIES ONLY
T201
N=16
N=3
N=13
N=8
N=8
N=60
TO E266
TO E267
CHASSIS GND#1
CR203 MR852
R226 3.9K .5W
C204 2300 UF 40V +75-10%
CR205 UT61249
R231 75 .5W
C205 14000 UF 7.5V +75-23%
F200 5A
E200
E201
E203
E202
E205
E206
E207
E208
E213
E214
E212
E211
E234
E235
+33VHO
SH11 (C-5)
SH12 (0-5)
+33V MTR
SH9 (0-6)
+5VOVR
SH9 SH10 SH11 SH12
+5V
TO ALL SHEETS
FAN-
J203 2
SHIELD
J203 4
R227 100,.5W
FAN+
J203 1
CR207 1N53398
R204 9.53K 1PCT
R203 68K
C200 2200PF 100V 10PCT
U202 SN72741P
R200 4.7K
U201 REF. SH13,(C-1)
R207 390 .5W
R205 9.09K .25W 1PCT
CR210 1N9148
CR201 E7919
R202 100K 1PCT
R206 3.3K
U205 LM340-12T
IN COM OUT
E230
E229
E233
E210
E209
+12V
SH1 SH7 SH8 SH9 SH10 SH12
CR209 1N4934
C212 1800 UF 20V +75-10%
R232 1K .5W
C216 .22UF 50V
C215 .047 UF 50V
C207 15UF 20V 10 PCT
CR206 1N53508
E227
E228
E232
E231
C211 1800 UF 20V +75-10%
CR211 1N4934
R233 1K .5W
C206 15UF 20V 10PCT
CR204
U206 LM320T-12.0
E219
E220
-12V
SH1 SH7 SH8
+33V
(+5V)
(+12V)
(-12V)
R215 1.4K 1W 1PCT
CR202 E7919
R222 1.82K .25W 1PCT
C201 .01UF 100V 10PCT
R223 10K .125W .1PCT
R224 4.12K .125W .1PCT
R221 1.62K .25W 1PCT
R214 10K .125W .1PCT
R216 15K
R218 2.2M
R225 4.75K 1PCT
U203D LM339N
R220 1.2M
U203C LM339N
R219 7.15K 1PCT
C202 1UF 35V 10PCT
U203B LM339N
R209 6.8K
R210 3.3K
R230 10K .25W 1PCT
R228 2K
E215
E216
PWRGOOD
SH3 SH4 SH6 SH7 SH8
R217 470K
Q203 A5T2907
Q205 TIS73
Q201 TIS73
R213 10K
Q202 A5T2222
R208 270
PWRGOOD
J11 14
J13 14
E223
E222
E221
R229 1M .5W
C210 .1UF 500V
C209 .1UF 500V
C208 .1UF 500V
CHASSIS GND #1
TEXAS INSTRUMENTS
DWN R. Garrison
DATE 7-26-79
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2207411
REV E
SCALE NONE
SHEET 14
2207411
14

REV	DESCRIPTION	DATE	APPROVED
A	4/6/81	8/14/81	A. Vargas

DWG NO 2217359 SH 1

NOTES: UNLESS OTHERWISE SPECIFIED:

1. RESISTANCE VALUES ARE IN OHMS
2. RESISTORS ARE ,.25 W, 5 PCT
3. CAPACITORS ARE , 50 V, P80M20 PCT

4. FOR PASSIVE RECEIVER OPERATION (NORMAL), JUMPER J32-2 TO J32-6 AND J32-4 TO J32-8. FOR ACTIVE RECEIVER OPERATION, JUMPER J32-1 TO J32-5 AND J32-3 TO J32-7

5. FOR PASSIVE TRANSMITTER OPERATION (NORMAL), JUMPER J34-2 TO J34-6 AND J34-4 TO J34-8. FOR ACTIVE TRANSMITTER OPERATION, JUMPER J34-1 TO J34-5 AND J34-3 TO J34-7

6. FOR TRANSMITTER OPENED WHEN POWER IS OFF (NORMAL), JUMPER J35-1 TO J35-5. FOR TRANSMITTER CLOSED WHEN POWER IS OFF, JUMPER J35-2 TO J35-6

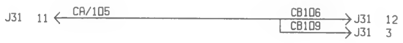
7. FOR TRANSMITTER CONTROLLED BY TRANSMITTED DATA (BA/103) (NORMAL OPERATION) JUMPER J33-1 TO J33-5 AND J33-3 TO J33-7. FOR TRANSMITTER CONTROLLED BY TRANSMITTED DATA (BA/103) AND DATA TERMINAL READY (CD/108) (IE; TRANSMITTED DATA WHEN ON-LINE AND TRANSMITTER OPENED WHEN OFF-LINE OR STANDBY), JUMPER J33-1 TO J33-5 AND J33-4 TO J33-8. FOR TRANSMITTER CONTROLLED BY SECONDARY REQUEST TO SEND (SCA/118) (I E; TRANSMITTER OPENED WHEN BUSY, OFF-LINE, STANDBY, PAPEROUT, OR CARRIAGE JAM) JUMPER J33-2 TO J33-6 AND J33-3 TO J33-7

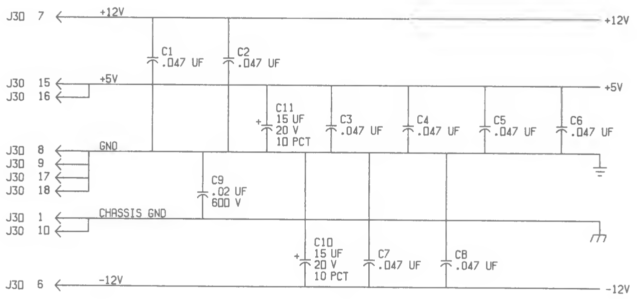
J30

PIN NO	SIGNAL
1	CHASSIS GND
2	NC
3	NC
4	NC
5	NC
6	-12V
7	+12V
8	SIGNAL GND
9	SIGNAL GND
10	CHASSIS GND
11	NC
12	NC
13	NC
14	PWR GOOD
15	+5V
16	+5V
17	SIGNAL GND
18	SIGNAL GND

J31

PIN NO	SIGNAL
1	TXOCURIN
2	NC
3	CB109
4	CE/125
5	CC/107
6	BA/103
7	BB/104
8	CH/111
9	RXOCURO
10	TXOCURO
11	CA/105
12	CB106
13	CD/108
14	SCA/118
15	SCF/119
16	NC
17	KEY
18	RXOCURIN





HIGHEST REFERENCE DESIGNATORS USED

J35	C11	Q7	CR6	R19
U4				

REFERENCE DESIGNATORS NOT USED

J1-29				

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2217357	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1° 3 PLACE DECIMALS ± 010 2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D-1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU 125 + 004 - .001	126 THRU 250 + 005 - .001	251 THRU 500 + 006 - 001
501 THRU 750 + 008 - .001	751 THRU 1 000 + .010 - 001	1 001 THRU 2 000 + 012 - 001

DWN	Fabia Lopez	6/16/81
CHK		12 Aug 81
ENGR	Knight	8/14/81
APVD	Dennis R Lutock	8/14/81
QA	Bradford	8/14/81
CONTR		8/14/81
RLSE	Alfredo Vargas	8/14/81

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

DIAGRAM LOGIC
820/825 CURRENT LOOP
INTERFACE

SIZE D FSCM NO 96214 DRAWING NO 2217359 FILMED

SCALE NONE SHEET 1 OF 2

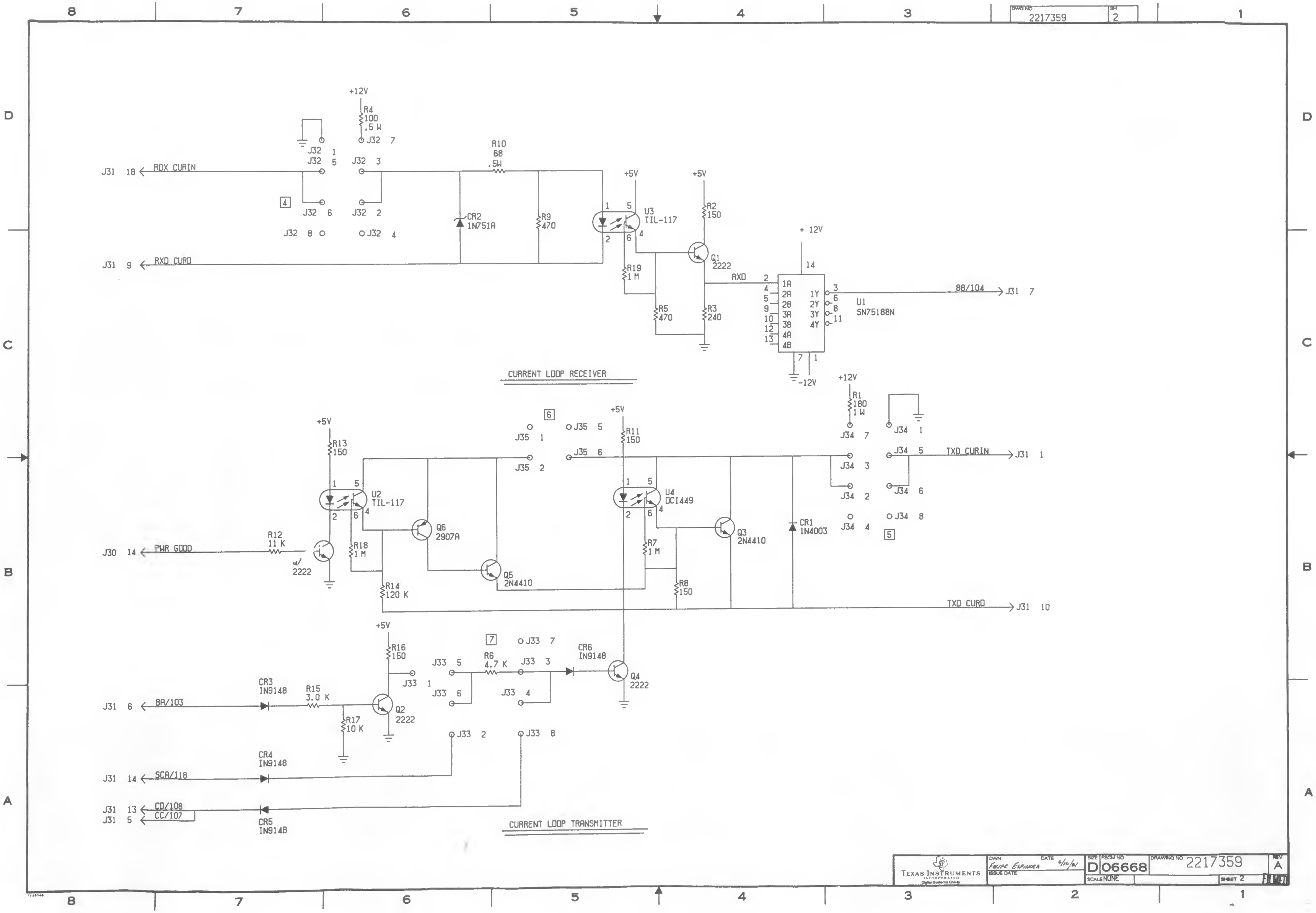
SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES
	PROCESS		CLASSIFICATION		

PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS. SEE TI DRAWING 729467

REV STATUS OF SHEETS		
REV	A	A
SH	1	2

H-MT

43


DWG NO 2217359 SH 2
CURRENT LOOP RECEIVER
CURRENT LOOP TRANSMITTER
J31 18 RDX CURIN
J31 9 RXD CURO
J32 1
J32 5
J32 6
J32 8
J32 3
J32 2
J32 4
J32 7
+12V
R4 100 .5 W
R10 68 .5W
CR2 1N751A
R9 470
U3 TIL-117
+5V
R19 1 M
R5 470
R2 150
Q1 2222
R3 240
RXD
U1 SN75188N
+ 12V
-12V
1A 2A 2B 3A 3B 4A 4B
1Y 2Y 3Y 4Y
88/104
J31 7
J30 14 PWR GOOD
R12 11 K
2222
R13 150
U2 TIL-117
R18 1 M
R14 120 K
Q6 2907A
Q5 2N4410
J35 1
J35 2
J35 5
J35 6
R11 150
U4 DC1449
R7 1 M
R8 150
Q3 2N4410
CR1 1N4003
R1 180 1 W
J34 7
J34 3
J34 2
J34 4
J34 1
J34 5
J34 6
J34 8
TXD CURIN
J31 1
TXD CURO
J31 10
J31 6 BA/103
CR3 IN9148
R15 3.0 K
R16 150
R17 10 K
Q2 2222
J33 1
J33 5
J33 6
R6 4.7 K
J33 3
J33 4
J33 7
J33 2
J33 8
CR6 IN9148
Q4 2222
J31 14 SCA/118
CR4 IN9148
J31 13 CD/108
J31 5 CC/107
CR5 IN914B
4
5
6
7
TEXAS INSTRUMENTS INCORPORATED Digital Systems Group
DWN Felipe Espinoza DATE 6/16/81
ISSUE DATE
SIZE D FSCM NO 06668
DRAWING NO 2217359
REV A
SCALE NONE
SHEET 2

DWG NO	SH
2208267	1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
A	CN479174 (D)	10/22/81	
B	CN502058(C) D. Stam	7-23-82	M Kovarik
C	CN492680 (B) D. Stam	7-23-82	M Kovarik
D	CN500703(E) D. Stam	7-23-82	M Kovarik
E	CN497542(E) M Kuehn	9-10-82	
F	CN503598(C) M Kuehn	11-8-82	

NOTES: UNLESS OTHERWISE SPECIFIED:

1. RESISTANCE VALUES ARE IN OHMS
2. RESISTORS ARE ,.25 W, 5 PCT
3. CAPACITORS ARE ,+80-20 PCT
4. DIODES ARE 1N4002
5. FOR POWER AND GROUND PINS SEE TABLE ON SHEET 11

PROCESSOR SECTION REFERENCE DESIGNATORS

FIRST USED	LAST USED	UNUSED
E1	E29	
R1	R37	
C1	C23	
CR1	CR3	
Q1	Q6	
U1	U45	

PRIMARY PWR SUPPLY REFERENCE DESIGNATORS

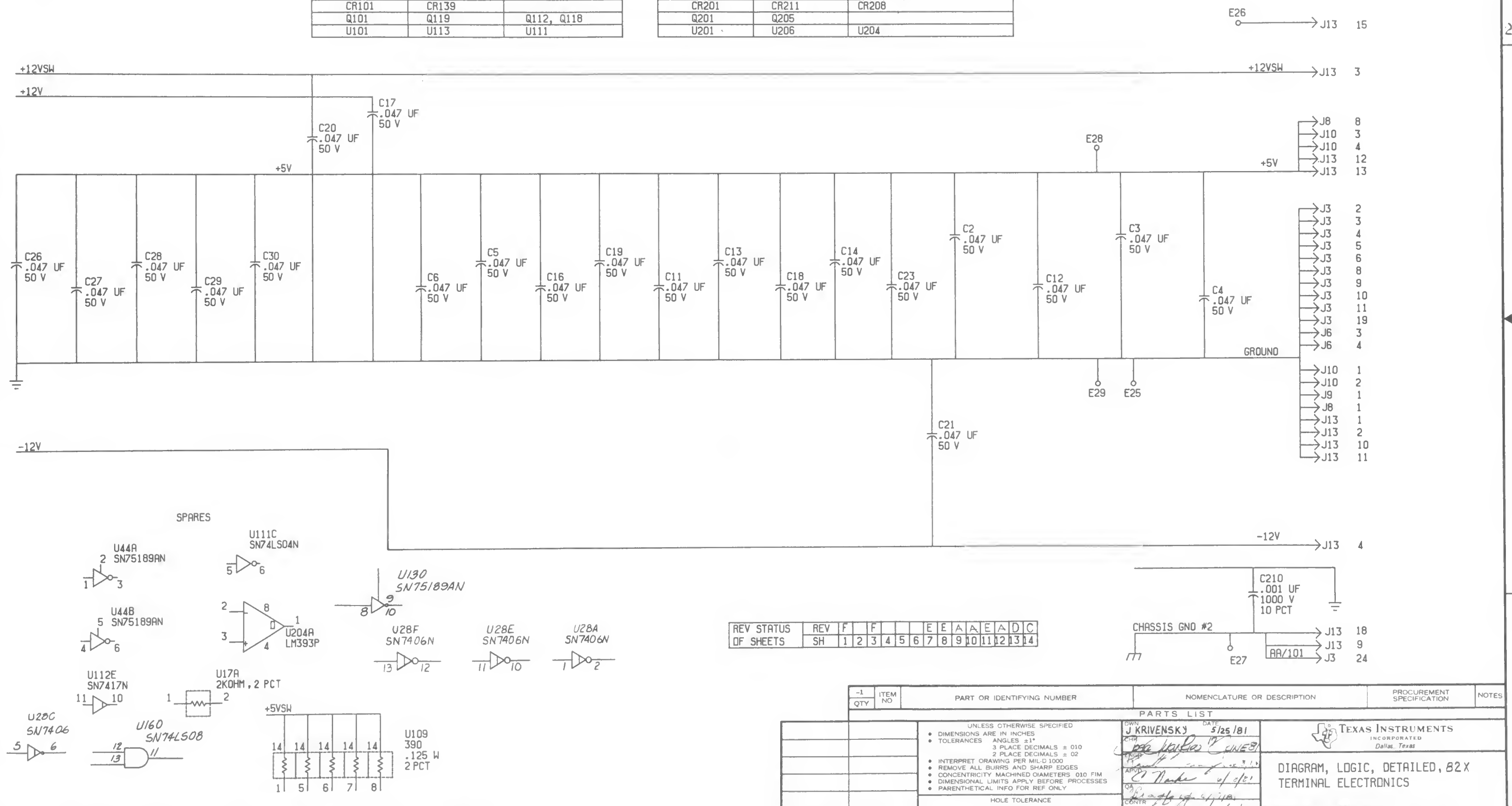
FIRST USED	LAST USED	UNUSED
E250	E286	E270, E272 E280, E283, E284
R250	R275	
C250	C264	
CR250	CR266	
Q250	Q255	

DRIVER REFERENCE DESIGNATORS

FIRST USED	LAST USED	UNUSED
E101	E117	E105 - E111
R101	R143	R136
C101	C108	
CR101	CR139	
Q101	Q119	Q112, Q118
U101	U113	U111

SECONDARY PWR SUPPLY REFERENCE DESIGNATION

FIRST USED	LAST USED	UNUSED
E200	E235	E217, E218, E224 E226
R200	R233	R201, R211, R212, R230
C200	C215	C214
CR201	CR211	CR208
Q201	Q205	
U201	U206	U204



REV STATUS	REV	F		F				E	E	A	A	E	A	D	C
OF SHEETS	SH	1	2	3	4	5	6	7	8	9	10	11	12	13	14

-1 QTY	ITEM NO	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION	PROCUREMENT SPECIFICATION	NOTES

PARTS LIST

NEXT ASSY	USED ON
2208265	8740

APPLICATION

UNLESS OTHERWISE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ANGLES ±1°
  3 PLACE DECIMALS ± 010
  2 PLACE DECIMALS ± 02
- INTERPRET DRAWING PER MIL-D 1000
- REMOVE ALL BURRS AND SHARP EDGES
- CONCENTRICITY MACHINED DIAMETERS 010 FIM
- DIMENSIONAL LIMITS APPLY BEFORE PROCESSES
- PARENTHETICAL INFO FOR REF ONLY

HOLE TOLERANCE

013 THRU 125 + 004 - 001	126 THRU 250 + 005 - 001	251 THRU 500 + 006 - 001
501 THRU 750 + 008 - 001	751 THRU 1 000 + 010 - 001	1 001 THRU 2 000 + 012 - 001

DWN J KRIVENSKY DATE 5/25/81
CHK 17 JUNE 81
ENGR
APVD C Nash 6/ /81
QA
CONTR 6/22/81
RLSE 6/22/81

TEXAS INSTRUMENTS
INCORPORATED
Dallas, Texas

DIAGRAM, LOGIC, DETAILED, 82X
TERMINAL ELECTRONICS

SIZE D FSCM NO 96214 DRAWING NO 2208267
SCALE NONE SHEET 1 OF 14

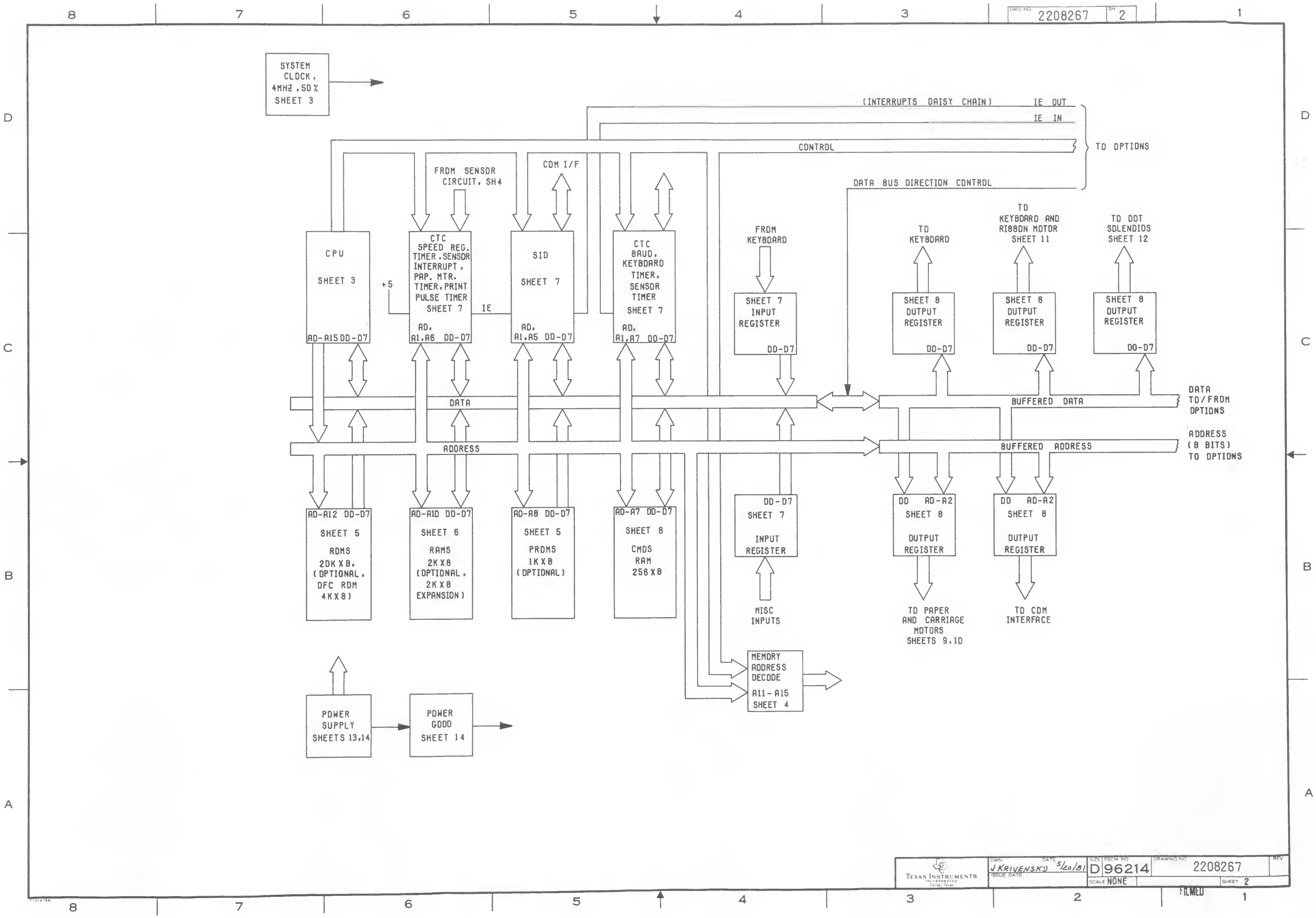
SEQ NO	IDENT	F-SPEC	NO	ADDITIONAL	NOTES	REV STATUS OF SHEETS	REV
	PROCESS			CLASSIFICATION			SH

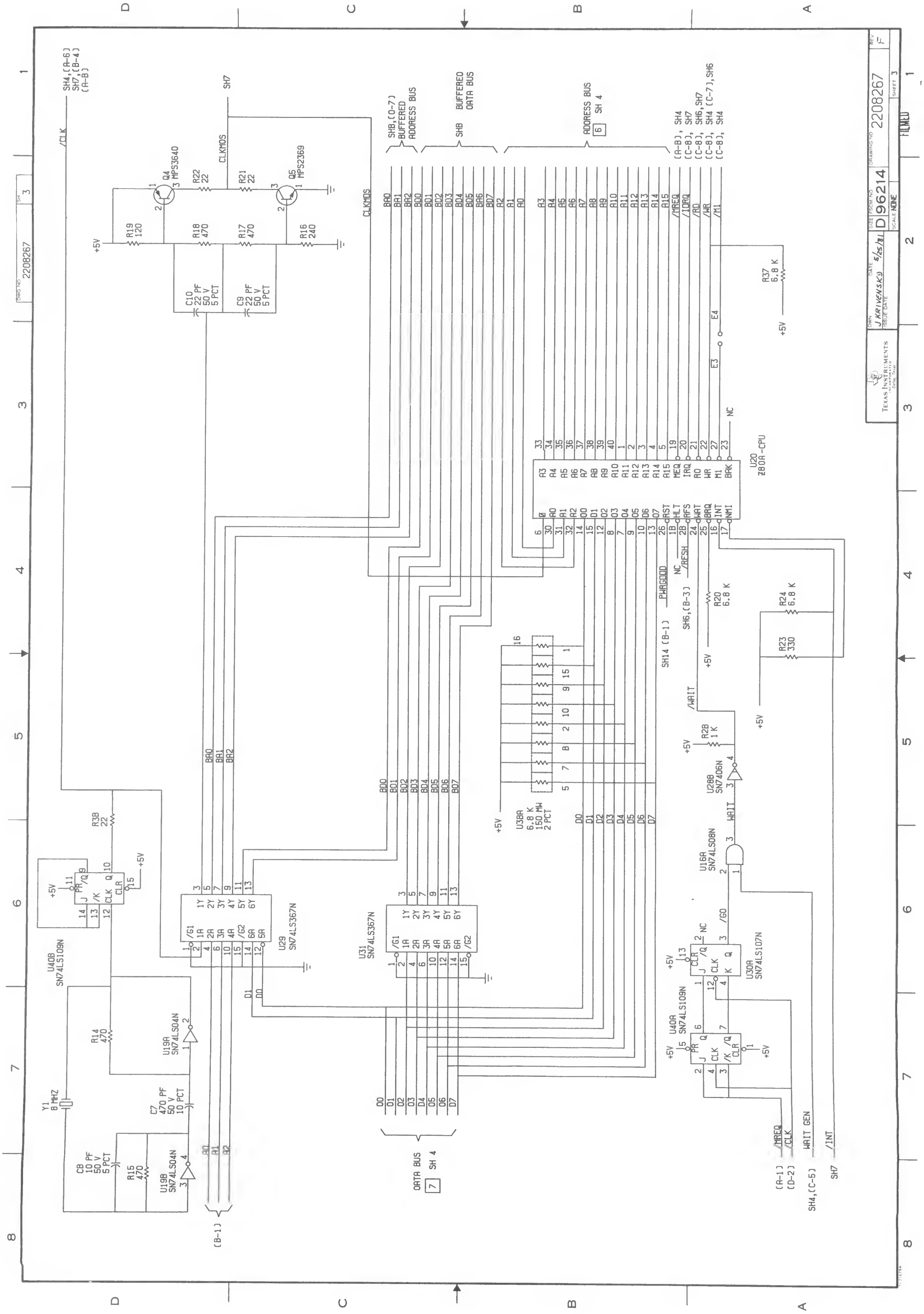
PROCESSES — FOR CORRELATION TO GOVT/IND SPECIFICATIONS SEE TI DRAWING 729467

430

H-MT FILMED 1

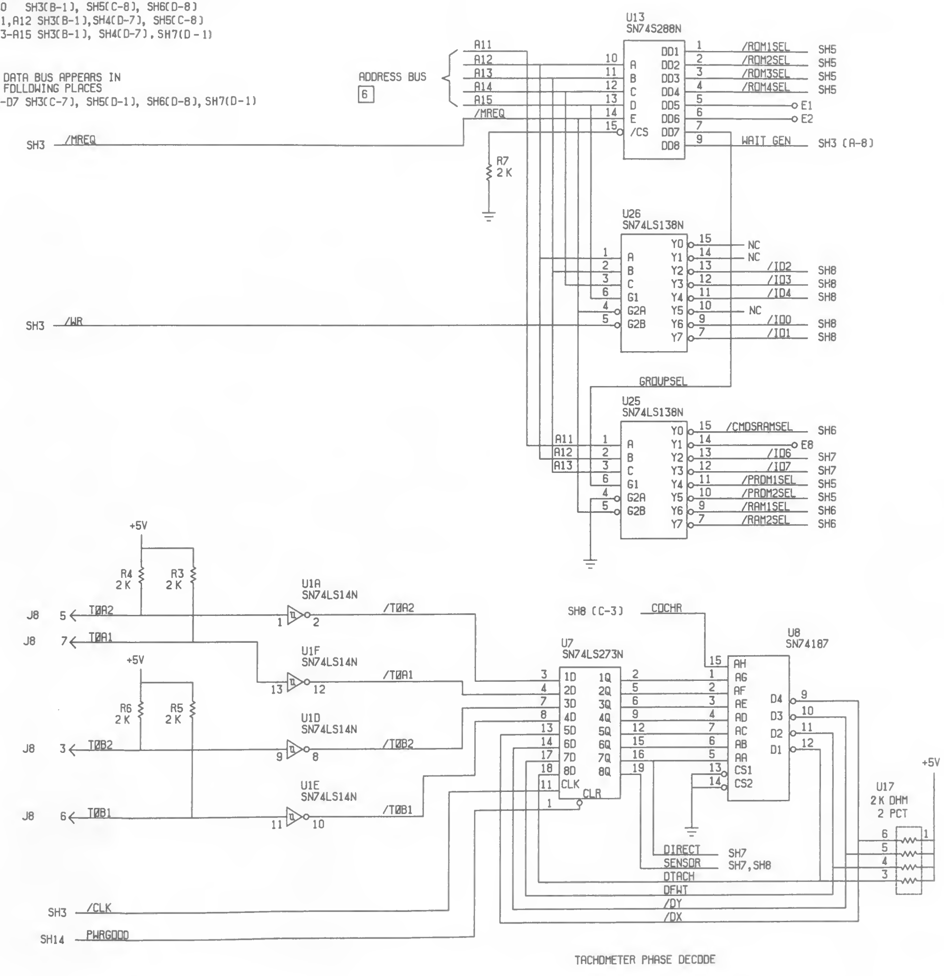
E I S


DWG NO 2208267 SH 2
SYSTEM CLOCK, 4MHZ, 50% SHEET 3
(INTERRUPTS DAISY CHAIN)
IE OUT
IE IN
CONTROL
TO OPTIONS
DATA BUS DIRECTION CONTROL
FROM SENSOR CIRCUIT, SH4
COM I/F
CPU SHEET 3
AD-A15 DO-D7
CTC SPEED REG. TIMER, SENSOR INTERRUPT, PAP. MTR. TIMER, PRINT PULSE TIMER SHEET 7
AD, A1, A6 DO-D7
+5
IE
SIO SHEET 7
AD, A1, A5 DO-D7
CTC BAUD, KEYBOARD TIMER, SENSOR TIMER SHEET 7
AD, A1, A7 DO-D7
FROM KEYBOARD
SHEET 7 INPUT REGISTER DO-D7
TO KEYBOARD
TO KEYBOARD AND RIBBON MOTOR SHEET 11
TO DOT SOLENOIDS SHEET 12
SHEET 8 OUTPUT REGISTER DO-D7
DATA
BUFFERED DATA
DATA TO/FROM OPTIONS
ADDRESS
BUFFERED ADDRESS
ADDRESS (8 BITS) TO OPTIONS
AD-A12 DO-D7 SHEET 5 ROMS 2K X 8, (OPTIONAL, DFC ROM 4K X 8)
AD-A10 DO-D7 SHEET 6 RAMS 2K X 8 (OPTIONAL, 2K X 8 EXPANSION)
AD-A8 DO-D7 SHEET 5 PROMS 1K X 8 (OPTIONAL)
AD-A7 DO-D7 SHEET 6 CMOS RAM 256 X 8
DO-D7 SHEET 7 INPUT REGISTER
MISC INPUTS
DO AD-A2 SHEET 8 OUTPUT REGISTER
TO PAPER AND CARRIAGE MOTORS SHEETS 9, 10
TO COM INTERFACE
MEMORY ADDRESS DECODE A11-A15 SHEET 4
POWER SUPPLY SHEETS 13, 14
POWER GOOD SHEET 14
TEXAS INSTRUMENTS INCORPORATED Dallas, Texas
DWN J KRIVENSKY DATE 5/20/81
ISSUE DATE
SIZE D FSCM NO 96214
DRAWING NO 2208267
REV
SCALE NONE
SHEET 2
FILMED


TEXAS INSTRUMENTS
J KRIVENSKY
5/25/81
D
96214
2208267
SHEET 3
SCALE NONE
F
FILMED
U20
Z80A-CPU
U29
SN74LS367N
U31
SN74LS367N
U40B
SN74LS109N
U40A
SN74LS109N
U19A
SN74LS04N
U19B
SN74LS04N
U16A
SN74LS08N
U28B
SN74LS06N
U30A
SN74LS107N
U38A
6.8 K
150 MW
2 PCT
Y1
8 MHZ
Q4
MPS3640
Q5
MPS2369
R19
120
R18
470
R17
470
R16
240
R22
22
R21
22
R38
22
R14
470
R15
470
R20
6.8 K
R24
6.8 K
R23
330
R28
1 K
R37
6.8 K
C10
22 PF
50 V
5 PCT
C9
22 PF
50 V
5 PCT
C7
470 PF
50 V
10 PCT
C8
10 PF
50 V
5 PCT
+5V
CLKMOS
/CLK
SH4,(A-6)
SH7,(B-4)
(A-B)
SH7
SH8,(D-7)
BUFFERED
ADDRESS BUS
SH8
BUFFERED
DATA BUS
ADDRESS BUS
6
SH 4
DATA BUS
7
SH 4
(A-B), SH4
(C-8), SH7
(C-8), SH6,SH7
(C-8), SH4 (C-7),SH6
(C-8), SH4
BA0
BA1
BA2
BD0
BD1
BD2
BD3
BD4
BD5
BD6
BD7
D0
D1
D2
D3
D4
D5
D6
D7
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
/MREQ
/IORQ
/RD
/WR
/M1
MREQ
IRQ
RD
WR
M1
BRK
RST
HLT
RFS
WAT
BRQ
INT
NMI
PWRGOOD
SH14 (B-1)
NC
/RFSH
SH6,(B-3)
/WAIT
WAIT
/GO
E3
E4
NC
/MREQ
/CLK
WAIT GEN
/INT
(A-1)
(D-2)
SH4,(C-5)
SH7
(B-1)
A0
A1
A2

6 THE ADDRESS BUS APPEARS IN THE FOLLOWING PLACES
A0,A1 SH3(B-1), SH5(D-8), SH6(D-8), SH7(D-1)
A2-A4 SH3(B-1), SH5(D-8), SH6(D-8)
A5-A7 SH3(B-1), SH5(D-8), SH6(D-8), SH7(D-1)
A8,A9 SH3(B-1), SH5(C-8)(D-8 ,SH6(D-8)
A10 SH3(B-1), SH5(C-8), SH6(D-8)
A11,A12 SH3(B-1),SH4(D-7), SH5(C-8)
A13-A15 SH3(B-1), SH4(D-7), SH7(D-1)

7 THE DATA BUS APPEARS IN THE FOLLOWING PLACES
D0-D7 SH3(C-7), SH5(D-1), SH6(D-8), SH7(D-1)


MEMORY ADDRESS DECODE

TACHOMETER PHASE DECODE

U13 ROM DECODE 74S288

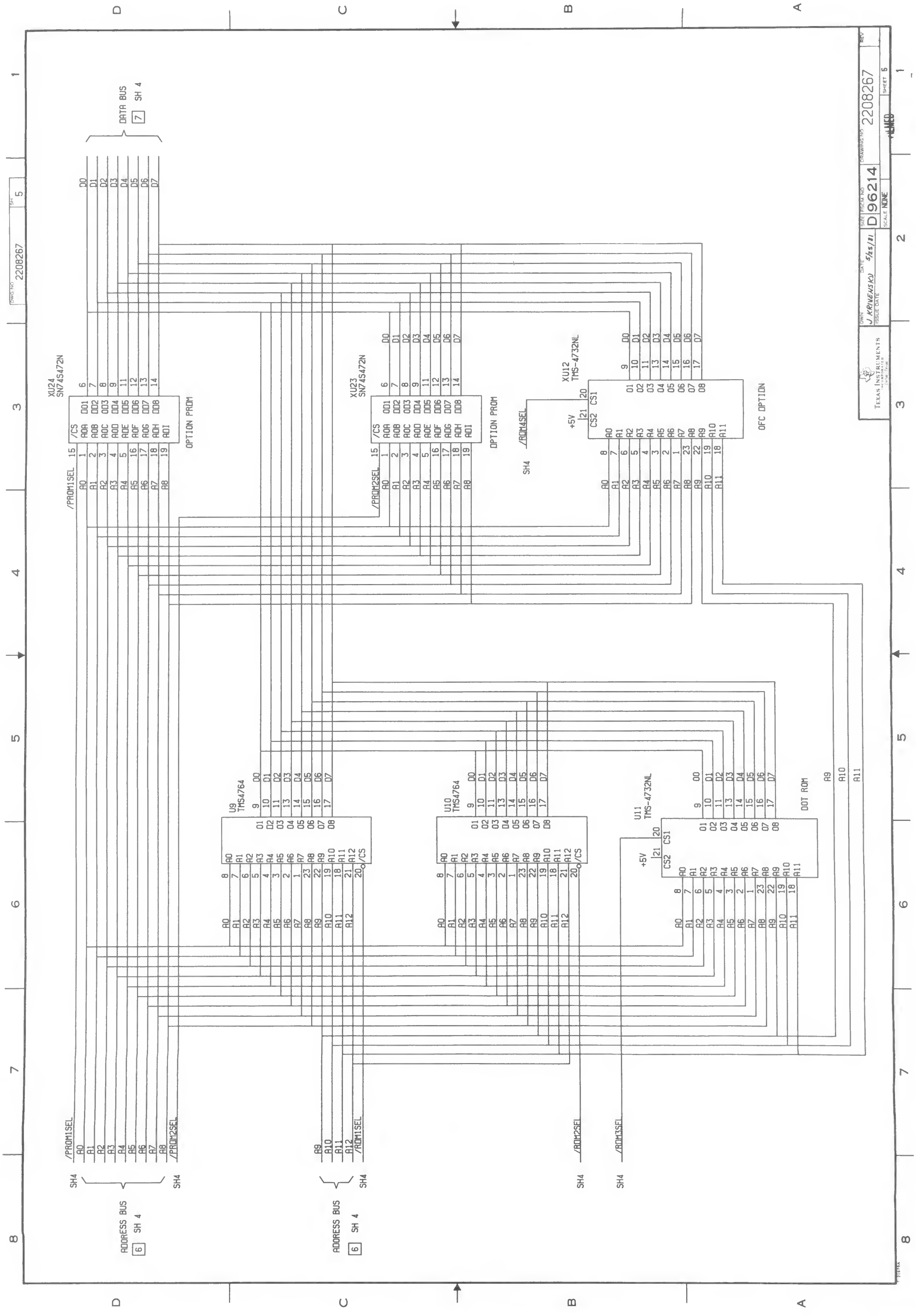
E D C B A	D8	D7	D6	D5	D4	D3	D2	D1	COMMENTS
0 0 0 0 0	1	0	0	0	1	1	1	0	ROM 1
0 0 0 0 1	1	0	0	0	1	1	1	0	
0 0 0 1 0	1	0	0	0	1	1	0	1	ROM 2
0 0 0 1 1	1	0	0	0	1	1	0	1	
0 0 1 0 0	1	0	0	0	1	0	1	1	ROM 3 (DFC)
0 0 1 0 1	1	0	0	0	0	1	1	1	ROM 4 (DOTS)
0 0 1 1 0	0	1	0	0	1	1	1	1	GROUP SEL: PROM 1, PROM 2
0 0 1 1 1	0	1	0	0	1	1	1	1	RAM 1, RAM 2
0 1 0 0 0	1	1	0	0	1	1	1	1	CMOS, ------
0 1 0 0 1	0	1	0	0	1	1	1	1	KB COL IN , BITS IN
0 1 0 1 0	0	0	0	0	1	1	1	1	ID 2 (KB ROWS LS)
0 1 0 1 1	0	0	0	0	1	1	1	1	ID 3 (KB ROWS MS)
0 1 1 0 0	0	0	0	0	1	1	1	1	ID 4 (DOTS)
0 1 1 0 1	0	0	0	0	1	1	1	1	
0 1 1 1 0	0	0	0	0	1	1	1	1	ID 0 (BELL,ETC)
0 1 1 1 1	0	0	0	0	1	1	1	1	ID 1 (PAPER,CARR)
1 0 0 0 0	0	0	0	0	1	1	1	1	
1 0 0 0 1	0	0	0	0	1	1	1	1	
1 0 0 1 0	0	0	0	0	1	1	1	1	
1 0 0 1 1	0	0	0	0	1	1	1	1	
1 0 1 0 0	0	0	0	0	1	1	1	1	
1 0 1 0 1	0	0	0	0	1	1	1	1	
1 0 1 1 0	0	1	0	0	1	1	1	1	GROUP SEL
1 0 1 1 1	0	1	0	0	1	1	1	1	
1 1 0 0 0	0	1	0	0	1	1	1	1	
1 1 0 0 1	0	1	0	0	1	1	1	1	
1 1 0 1 0	0	0	0	0	1	1	1	1	
1 1 0 1 1	0	0	0	0	1	1	1	1	
1 1 1 0 0	0	0	0	0	1	1	1	1	
1 1 1 0 1	0	0	0	0	1	1	1	1	
1 1 1 1 0	0	0	0	0	1	1	1	1	
1 1 1 1 1	0	0	0	0	1	1	1	1	

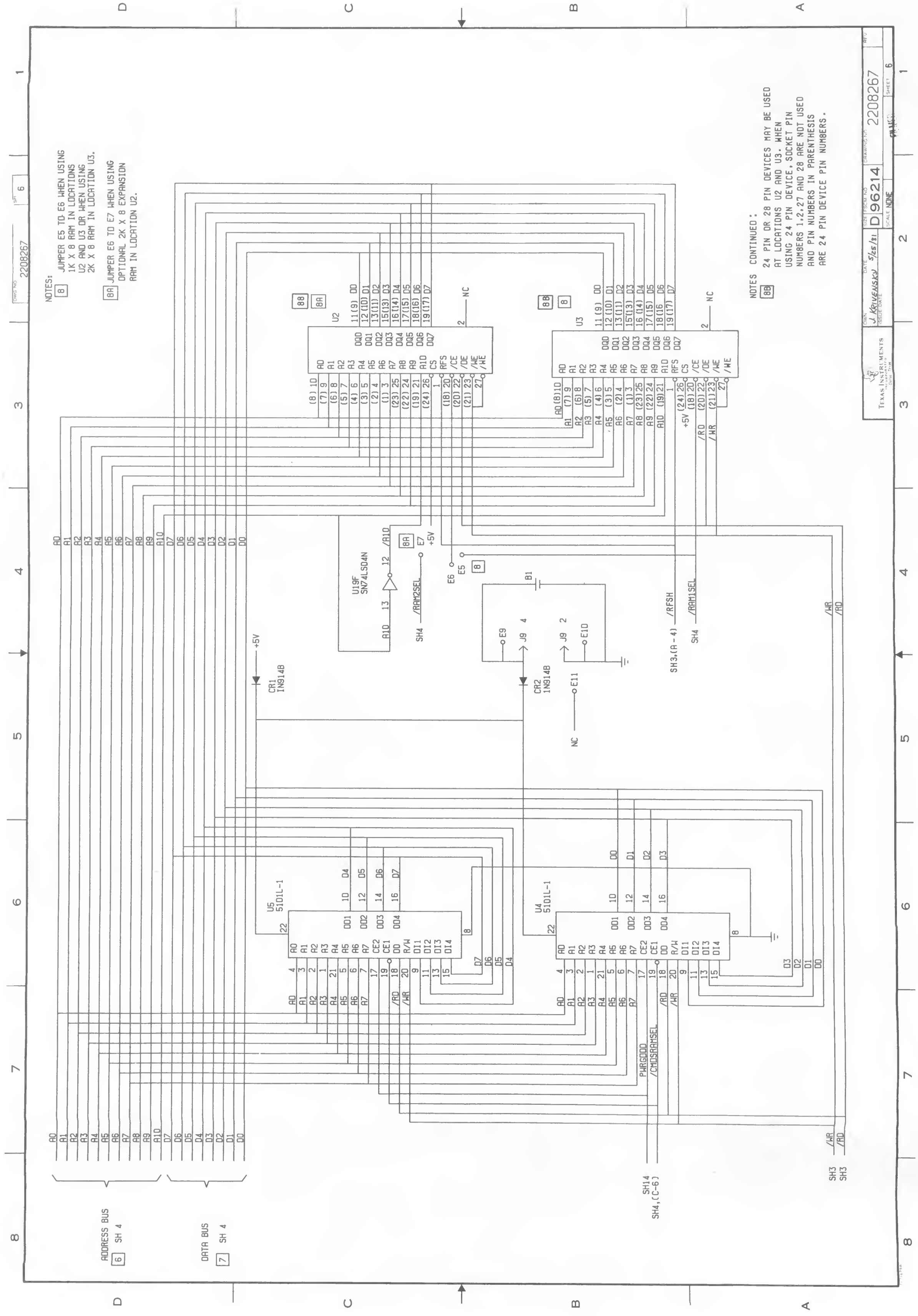
U8 TACH STATES

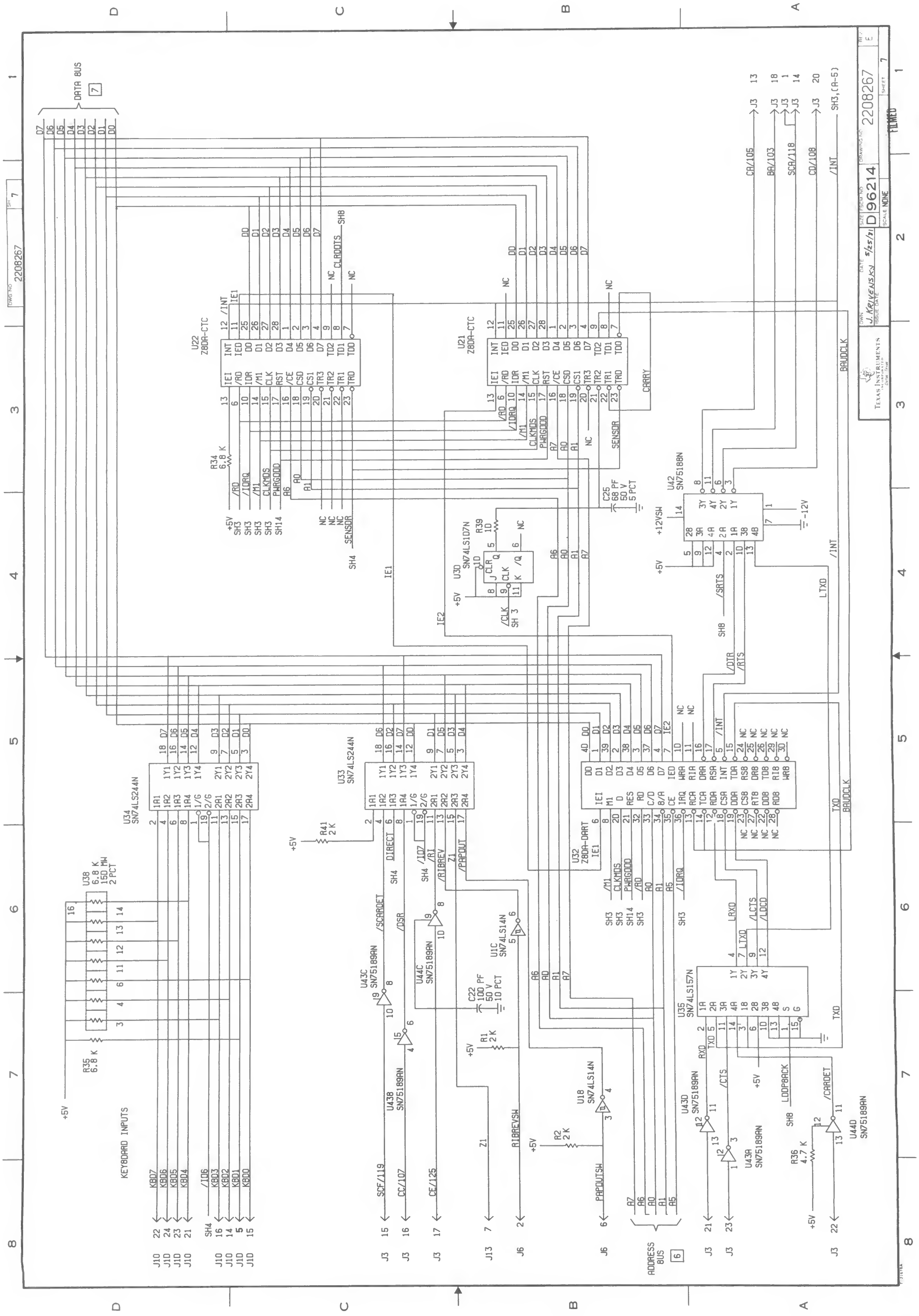
D4,D3,D2,D1

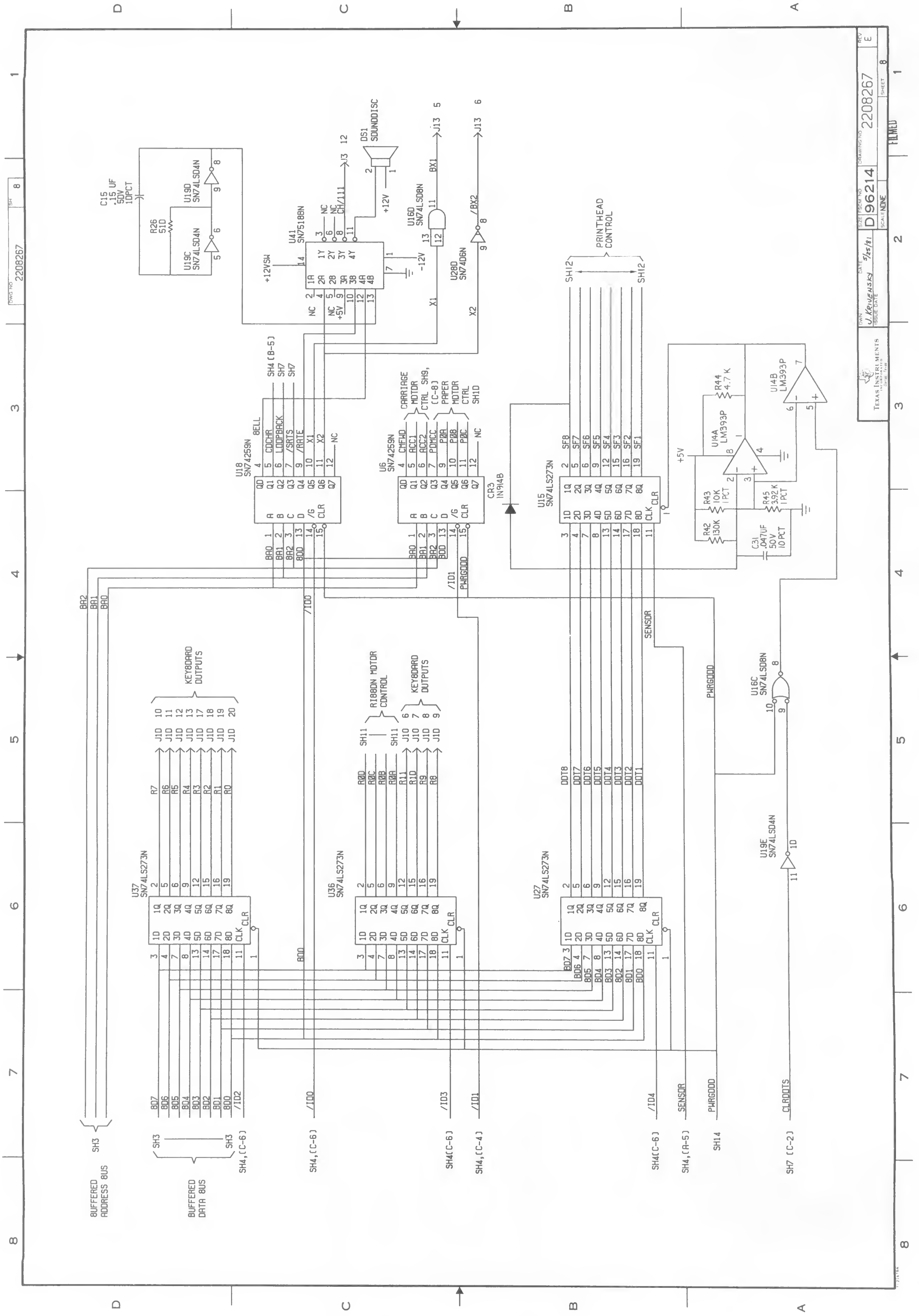
CBA HGFED	000	001	010	011	100	101	110	111
00000	0000	0010	0000	0010	1100	1110	1100	1110
00001	0000	0010	0000	0010	1100	1110	1100	1110
00010	0000	0010	0000	0010	1100	1110	1100	1110
00011	0000	0010	0000	0010	1100	1110	1100	1110
00100	0100	0110	0100	0110	0100	0110	0111	0111
00101	1001	1001	1000	1010	1000	1010	1000	1010
00110	0100	0110	0100	0110	0100	0110	0111	0111
00111	1001	1001	1000	1010	1000	1010	1000	1010
01000	0000	0010	0000	0010	1100	1110	1100	1110
01001	0000	0010	0000	0010	1100	1110	1100	1110
01010	0000	0010	0000	0010	1100	1110	1100	1110
01011	0000	0010	0000	0010	1100	1110	1100	1110
01100	0100	0110	0100	0110	0100	0110	0111	0111
01101	1001	1001	1000	1010	1000	1010	1000	1010
01110	0100	0110	0100	0110	0100	0110	0111	0111
01111	1001	1001	1000	1010	1000	1010	1000	1010
10000	0000	0010	0000	0010	1100	1110	1100	1110
10001	0000	0010	0000	0010	1100	1110	1100	1110
10010	0000	0010	0000	0010	1100	1110	1100	1110
10011	0000	0010	0000	0010	1100	1110	1100	1110
10100	0000	0010	0000	0010	1100	1110	1100	1110
10101	0000	0010	0000	0010	1100	1110	1100	1110
10110	0000	0010	0000	0010	1100	1110	1100	1110
10111	0000	0010	0000	0010	1100	1110	1100	1110
11000	0100	0110	0100	0110	0100	0110	0111	0111
11001	0100	0110	0100	0110	0100	0110	0111	0111
11010	1001	1001	1000	1010	1000	1010	1000	1010
11011	1001	1001	1000	1010	1000	1010	1000	1010
11100	0100	0110	0100	0110	0100	0110	0111	0111
11101	0100	0110	0100	0110	0100	0110	0111	0111
11110	1001	1001	1000	1010	1000	1010	1000	1010
11111	1001	1001	1000	1010	1000	1010	1000	1010

TEXAS INSTRUMENTS INCORPORATED Dallas Texas
DWN J. KRIVENSKY DATE 5/25/81
ISSUE DATE
SIZE D FSCM NO 96214
DRAWING NO 2208267
SCALE NONE
SHEET 4
FILMED


XU24
SN74S472N
OPTION PROM
XU23
SN74S472N
OPTION PROM
XU12
TMS-4732NL
OFC OPTION
U9
TMS4764
U10
TMS4764
U11
TMS-4732NL
DOT ROM
DATA BUS
7 SH 4
ADDRESS BUS
6 SH 4
ADDRESS BUS
6 SH 4
/PROM1SEL
/PROM2SEL
/ROM1SEL
/ROM2SEL
/ROM3SEL
/ROM4SEL
SH4
+5V
/CS
CS1
CS2
D0
D1
D2
D3
D4
D5
D6
D7
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
DWG NO 2208267
SH 5
TEXAS INSTRUMENTS INCORPORATED Dallas Texas
DWN J KRIVENSKY
DATE 5/25/81
ISSUE DATE
SIZE D
FSCM NO 96214
DRAWING NO 2208267
SCALE NONE
SHEET 5
REV
A
B
C
D
1
2
3
4
5
6
7
8


NOTES:
8 JUMPER E5 TO E6 WHEN USING 1K X 8 RAM IN LOCATIONS U2 AND U3 OR WHEN USING 2K X 8 RAM IN LOCATION U3.
8A JUMPER E6 TO E7 WHEN USING OPTIONAL 2K X 8 EXPANSION RAM IN LOCATION U2.
NOTES CONTINUED:
8B 24 PIN OR 28 PIN DEVICES MAY BE USED AT LOCATIONS U2 AND U3. WHEN USING 24 PIN DEVICE, SOCKET PIN NUMBERS 1,2,27 AND 28 ARE NOT USED AND PIN NUMBERS IN PARENTHESIS ARE 24 PIN DEVICE PIN NUMBERS.
2208267
6
U2
U3
8B
8A
8
NC
U19F
SN74LS04N
/RAM2SEL
/RAM1SEL
/RFSH
SH4
SH3,(A-4)
E5
E6
E7
E9
E10
E11
J9
B1
CR1
IN914B
CR2
IN914B
+5V
U4
5101L-1
U5
5101L-1
PWRGOOD
/CMOSRAMSEL
SH14
SH4,(C-6)
/WR
/RD
SH3
SH3
ADDRESS BUS
6 SH 4
DATA BUS
7 SH 4
J. KRIVENSKY 5/25/81
D96214
2208267
SCALE NONE
SHEET 6
TEXAS INSTRUMENTS


DATA BUS 7
D7 D6 D5 D4 D3 D2 D1 D0
U22 Z80A-CTC
U21 Z80A-CTC
U32 Z80A-DART
U33 SN74LS244N
U34 SN74LS244N
U35 SN74LS157N
U42 SN75188N
U30 SN74LS107N
U43C SN75189AN
U43B SN75189AN
U43D SN75189AN
U43A SN75189AN
U44C SN75189AN
U44D SN75189AN
U1C SN74LS14N
U1B SN74LS14N
U38 6.8 K 150 MW 2 PCT
R34 6.8 K
R35 6.8 K
R36 4.7 K
R39 1K
R41 2 K
R1 2 K
R2 2 K
C22 100 PF 50 V 10 PCT
C25 68 PF 50 V 5 PCT
KEYBOARD INPUTS
KBD7 KBD6 KBD5 KBD4 /IO6 KBD3 KBD2 KBD1 KBD0
SCF/119
CC/107
CE/125
Z1
RIBREVSW
PAPOUTSW
ADDRESS BUS 6
A7 A6 A0 A1 A5
/CARDET
LOOPBACK
/CTS
RXD
TXD
LTXD
LRXD
/LCTS
/LDCD
/DTR
/RTS
/SRTS
BAUDCLK
CARRY
SENSOR
CLRDOTS
/INT
IE1
IE2
/SCARDET
/DSR
/RIBREV
/PAPOUT
DIRECT
/CLK
CB/105
BA/103
SCA/118
CD/108
SH3, (A-5)
+5V
+12VSW
-12V
J3 J6 J10 J13
TEXAS INSTRUMENTS
J. KRIVENSKY 5/25/71
D 96214
2208267
SCALE NONE
SHEET 7
FILMED



DWG NO 2208267
SH 8
TEXAS INSTRUMENTS
D 96214
2208267
REV E
SHEET 8
J. KRIWENSKY 5/28/81
SCALE NONE
FILMED
U41 SN75188N
DS1 SOUNDDISC
U16D SN74LS08N
U20D SN7406N
U19C SN74LS04N
U19D SN74LS04N
C15 .15 UF 50V 10PCT
R26 510
U18 SN74259N
U6 SN74259N
U15 SN74LS273N
U14A LM393P
U14B LM393P
R44 4.7 K
R43 10K 1PCT
R42 130K
R45 3.92 K 1PCT
C31 .047UF 50V 10 PCT
CR3 1N914B
U16C SN74LS08N
U19E SN74LS04N
U37 SN74LS273N
U36 SN74LS273N
U27 SN74LS273N
BELL
CDCHR
LOOPBACK
/SRTS
/RATE
CARRIAGE MOTOR CTRL SH9, (C-8)
PAPER MOTOR CTRL SH10
PRINTHEAD CONTROL
SH12
KEYBOARD OUTPUTS
RIBBON MOTOR CONTROL
SH11
SENSOR
PWRGOOD
CLRDOTS
BUFFERED ADDRESS BUS
BUFFERED DATA BUS
SH3
SH4,(C-6)
SH4(C-6)
SH4,(C-4)
SH4,(A-5)
SH14
SH7 (C-2)
J13 5
J13 6
J3 12
+12V
-12V
+5V
+12VSW

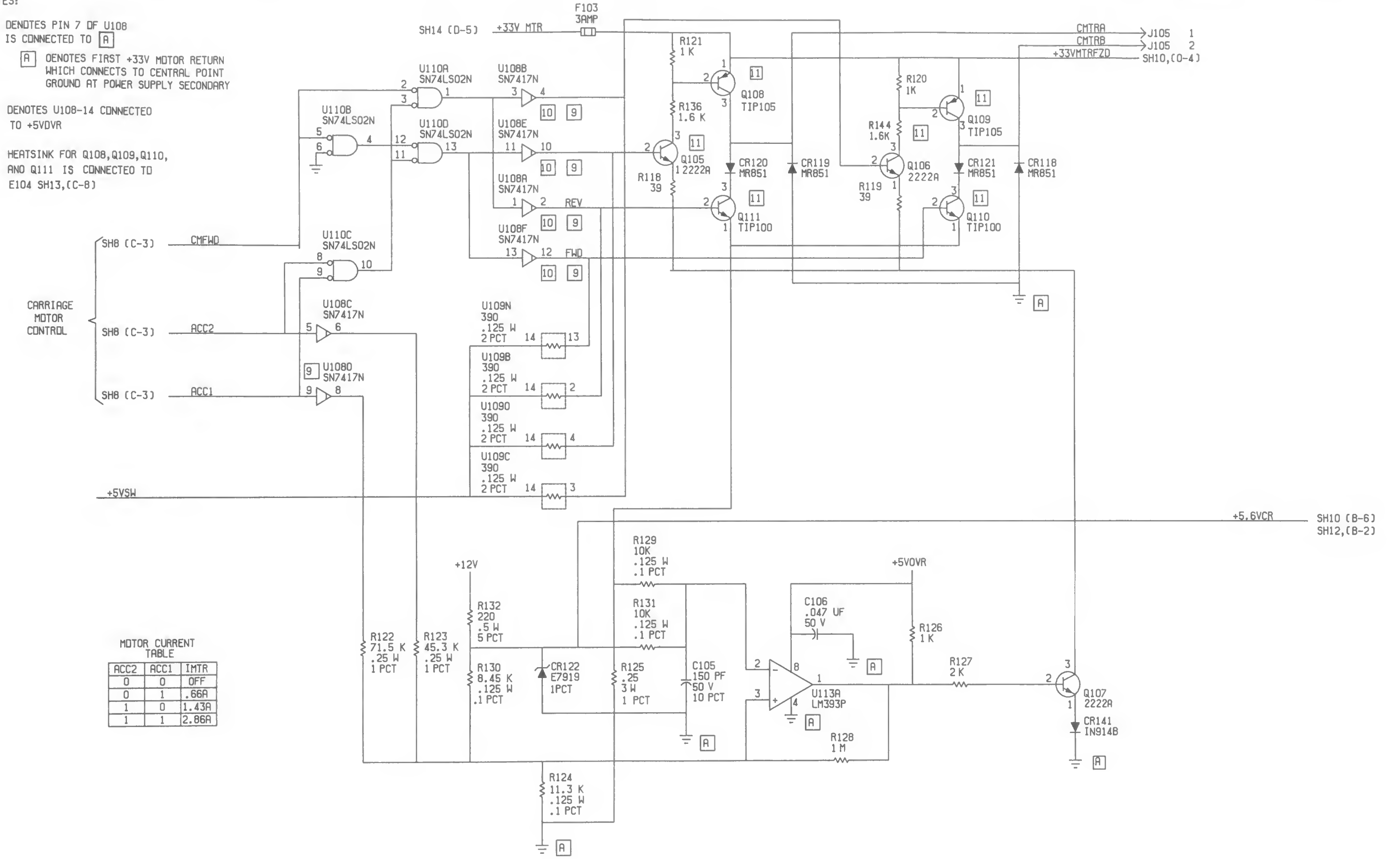
NOTES:

9 DENOTES PIN 7 OF U108 IS CONNECTED TO A

A OENOTES FIRST +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINT GROUND AT POWER SUPPLY SECONDARY

10 DENOTES U108-14 CONNECTEO TO +5VDVR

11 HEATSINK FOR Q108,Q109,Q110, ANO Q111 IS CONNECTED TO E104 SH13,(C-8)



MOTOR CURRENT TABLE

ACC2	ACC1	IMTR
0	0	OFF
0	1	.66A
1	0	1.43A
1	1	2.86A

CARRIAGE MOTOR DRIVE

TEXAS INSTRUMENTS
INCORPORATED
Dallas Texas

DWN	DATE	SIZE	FSCM NO	DRAWING NO	REV
J. KRIVENSKY	5/25/81	D	96214	2208267	A

ISSUE DATE

SCALE NONE

SHEET 9

FILMED

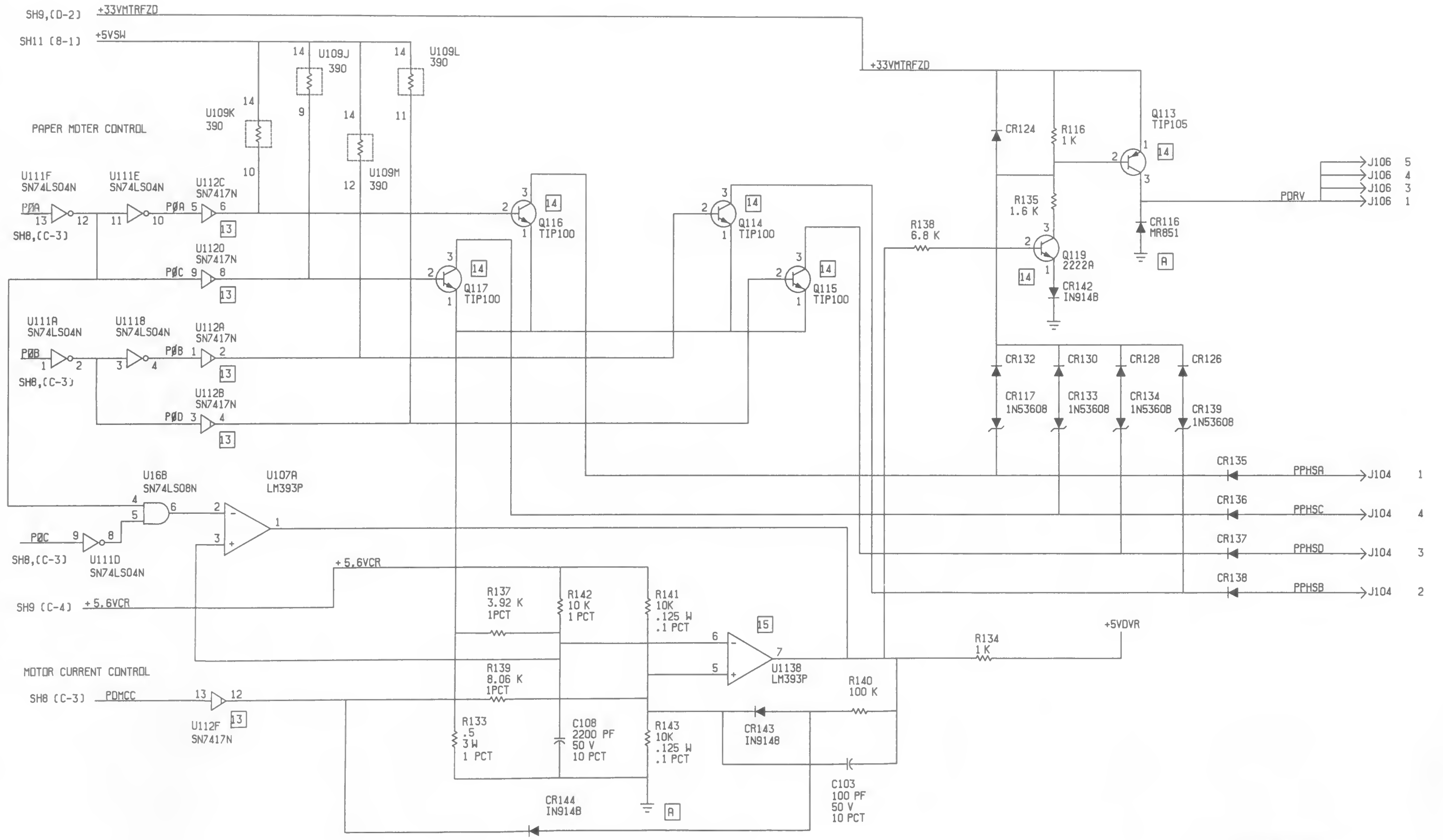
NOTES:

13 U112-14 IS CONNECTED TO +5VDVR

A DENOTES FIRST +33V MOTOR RETURN WHICH CONNECTS TO CENTRAL POINT GROUND

14 HEATSINK FOR Q113,Q114,Q115, Q116,AND Q117 IS CONNECTED TO E104 SH13,(C-8)

15 POWER CONNECTION FOR U113 SHOWN ON SH9,(B-4)



PAPER MOTOR DRIVE

TEXAS INSTRUMENTS INCORPORATED Dallas Texas

DWN J.KRIVENSKY DATE 5/25/81

ISSUE DATE

SIZE D FSCM NO 96214 DRAWING NO 2208267 REV A

SCALE NONE SHEET 10

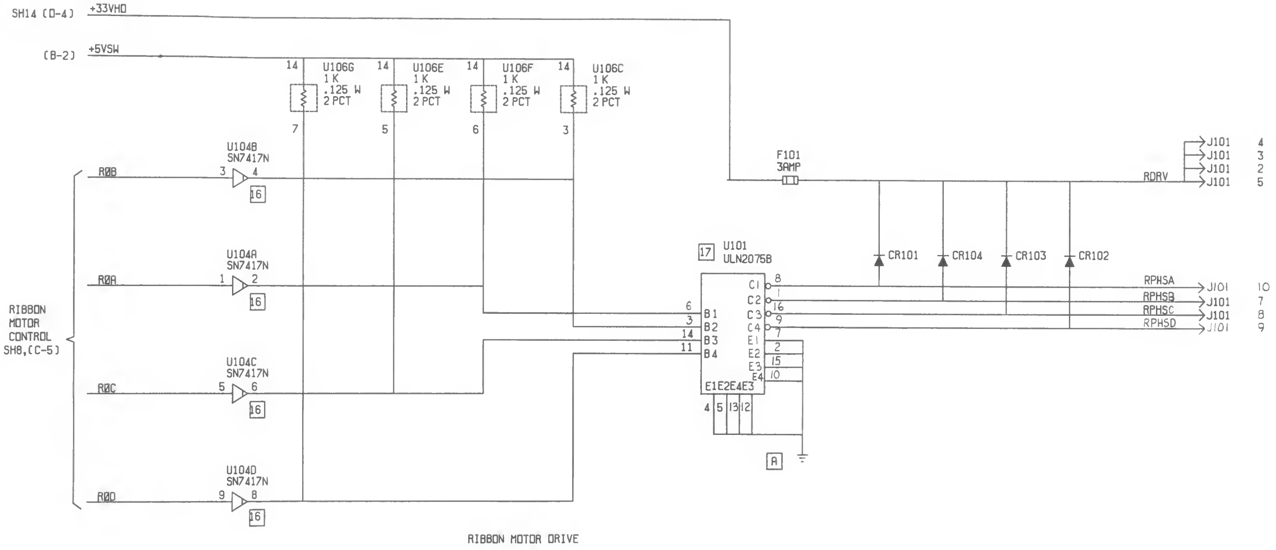
FILMED

DWG NO 2208267 SH 11

NOTES:

16 DENOTES U104-14 IS CONNECTED TO +5VDVR U104-7 IS CONNECTED TO A

17 DENOTES HEATSINK ON U101 U102,AND U103 IS CONNECTED TO E104 SH 13,(C-8)



RIBBON MOTOR DRIVE

POWER AND GROUND PINS					
DEVICE	VCC	GND	DEVICE	VCC	GND
MK 4118	24	12	SN74LS273	20	10
SN7406	14	7	SN74S287	16	8
SN7417	14	7	SN74S288	16	8
SN74259	16	8	SN74LS367	14	7
SN74LS02	14	7	SN74S472	20	10
SN74LS04	14	7	SN75189	14	7
SN74LS08	14	7	TMS 4016	24	12
SN74LS14	14	7	TMS 4732	24	12
SN74LS107	14	7	TMS 4764	24	12
SN74LS109	16	8	Z80A CPU	11	29
SN74LS138	16	8	Z80A CTC	24	5
SN74LS157	16	8	Z80A DART	9	31
SN74LS244	20	10			

TEXAS INSTRUMENTS

DWN J. KRIVENSKY DATE 5/25/81

ISSUE DATE

SIZE D FSCM NO 96214

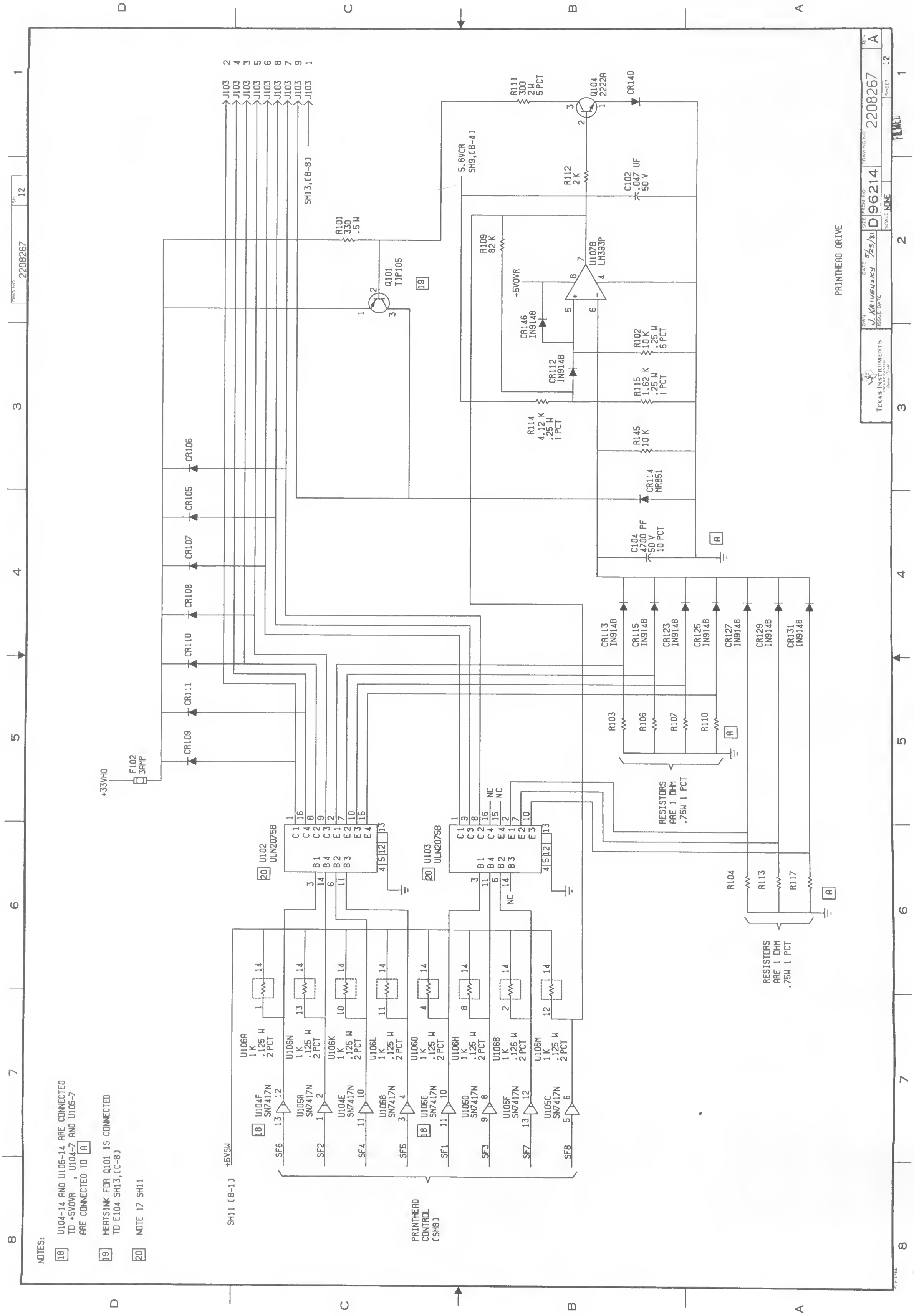
DRAWING NO 2208267

REV E

SCALE NONE

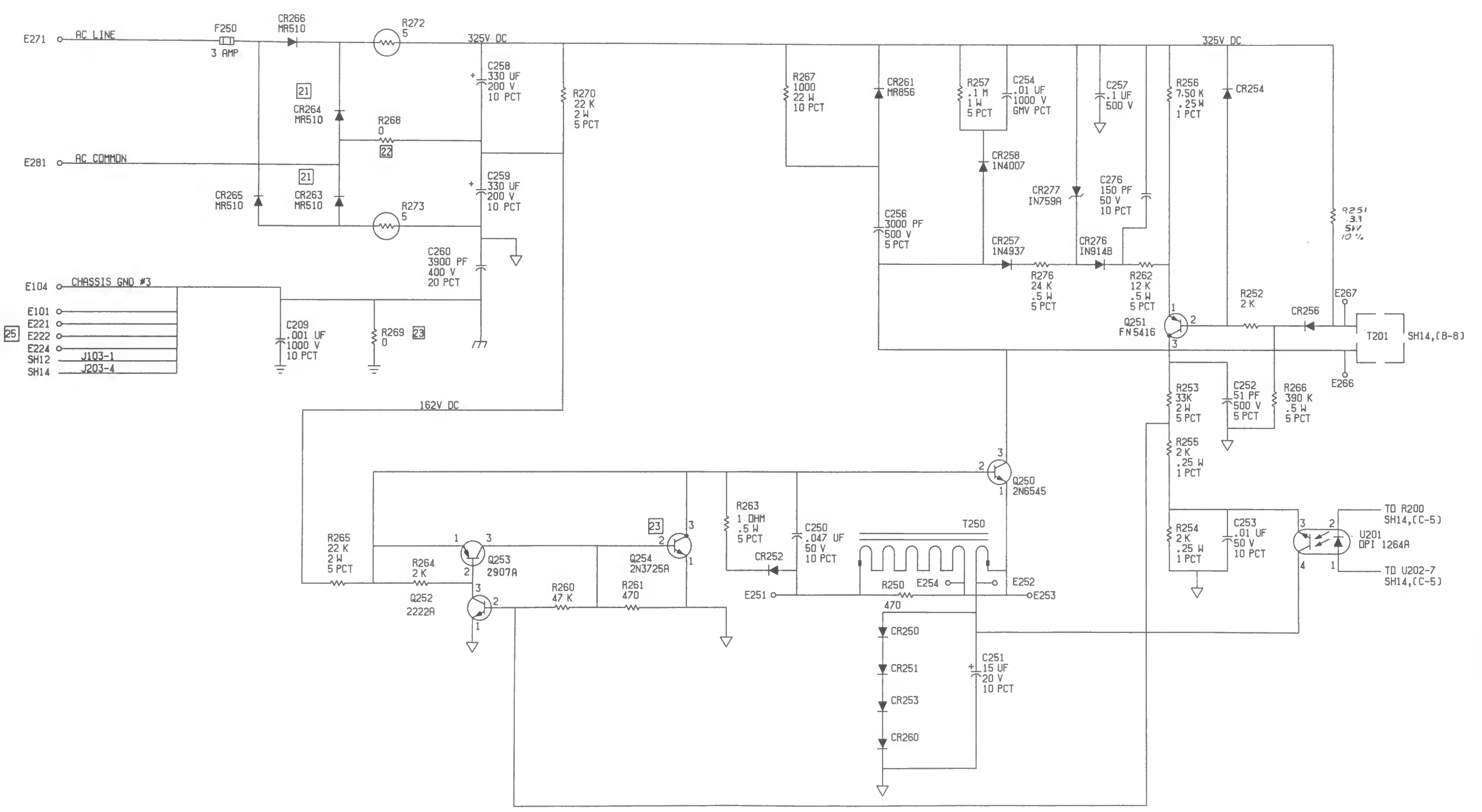
SHEET 11

FILMED


PRINTHEAD DRIVE
TEXAS INSTRUMENTS INCORPORATED Dallas Texas
DWN J. KRIVENSKY DATE 5/25/81
ISSUE DATE
SIZE D FSCM NO 96214
DRAWING NO 2208267
REV A
SCALE NONE
SHEET 12
FILMED
DWG NO 2208267 SH 12
NOTES:
18 U104-14 AND U105-14 ARE CONNECTED TO +5VOVR , U104-7 AND U105-7 ARE CONNECTED TO A
19 HEATSINK FOR Q101 IS CONNECTED TO E104 SH13,(C-8)
20 NOTE 17 SH11
J103 2
J103 4
J103 3
J103 5
J103 6
J103 8
J103 7
J103 9
J103 1
SH13,(B-8)
R101 330 .5 W
Q101 TIP105
5.6VCR SH9,(B-4)
R111 300 2 W 5 PCT
Q104 2222A
CR140
R112 2 K
C102 .047 UF 50 V
R109 82 K
+5VOVR
U107B LM393P
CR146 IN914B
CR112 IN914B
R102 10 K .25 W 5 PCT
R114 4.12 K .25 W 1 PCT
R115 1.62 K .25 W 1 PCT
R145 10 K
CR114 MR851
C104 4700 PF 50 V 10 PCT
CR106
CR105
CR107
CR108
CR110
CR111
CR109
+33VHO
F102 3AMP
CR113 IN914B
CR115 IN914B
CR123 IN914B
CR125 IN914B
CR127 IN914B
CR129 IN914B
CR131 IN914B
R103
R106
R107
R110
RESISTORS ARE 1 OHM .75W 1 PCT
R104
R113
R117
RESISTORS ARE 1 OHM .75W 1 PCT
U102 ULN2075B
U103 ULN2075B
C1 C4 C2 C3 E1 E2 E3 E4
B1 B4 B2 B3
NC
U106A 1 K .125 W 2 PCT
U106N 1 K .125 W 2 PCT
U106K 1 K .125 W 2 PCT
U106L 1 K .125 W 2 PCT
U106O 1 K .125 W 2 PCT
U106H 1 K .125 W 2 PCT
U106B 1 K .125 W 2 PCT
U106M 1 K .125 W 2 PCT
U104F SN7417N
U105A SN7417N
U104E SN7417N
U105B SN7417N
U105E SN7417N
U105D SN7417N
U105F SN7417N
U105C SN7417N
+5VSW
SF6
SF2
SF4
SF5
SF1
SF3
SF7
SF8
SH11 (8-1)
PRINTHEAD CONTROL (SH8)
A
B
C
D
1
2
3
4
5
6
7
8

NOTES:

- 21 DIODES CR263 & CR264 PRESENT ON 230 VAC VERSIONS ONLY
- 22 RESISTOR R268 PRESENT ON 110 VAC VERSIONS ONLY
- 23 CHASSIS GROUND AND SIGNAL GROUND PERMANTLY CONNECTED ON -0401(BPD) ASSEMBLIES ONLY
- ~~24 RESISTORS R277 & R278 MAY BE USED IN PLACE OF R261~~
- 25 E221 MAY BE JUMPERED TO EITHER E222 OR E223 (SHEET 14) AS REQUIRED



TEXAS INSTRUMENTS

DWN J. KRIVENSKY DATE 5/25/81

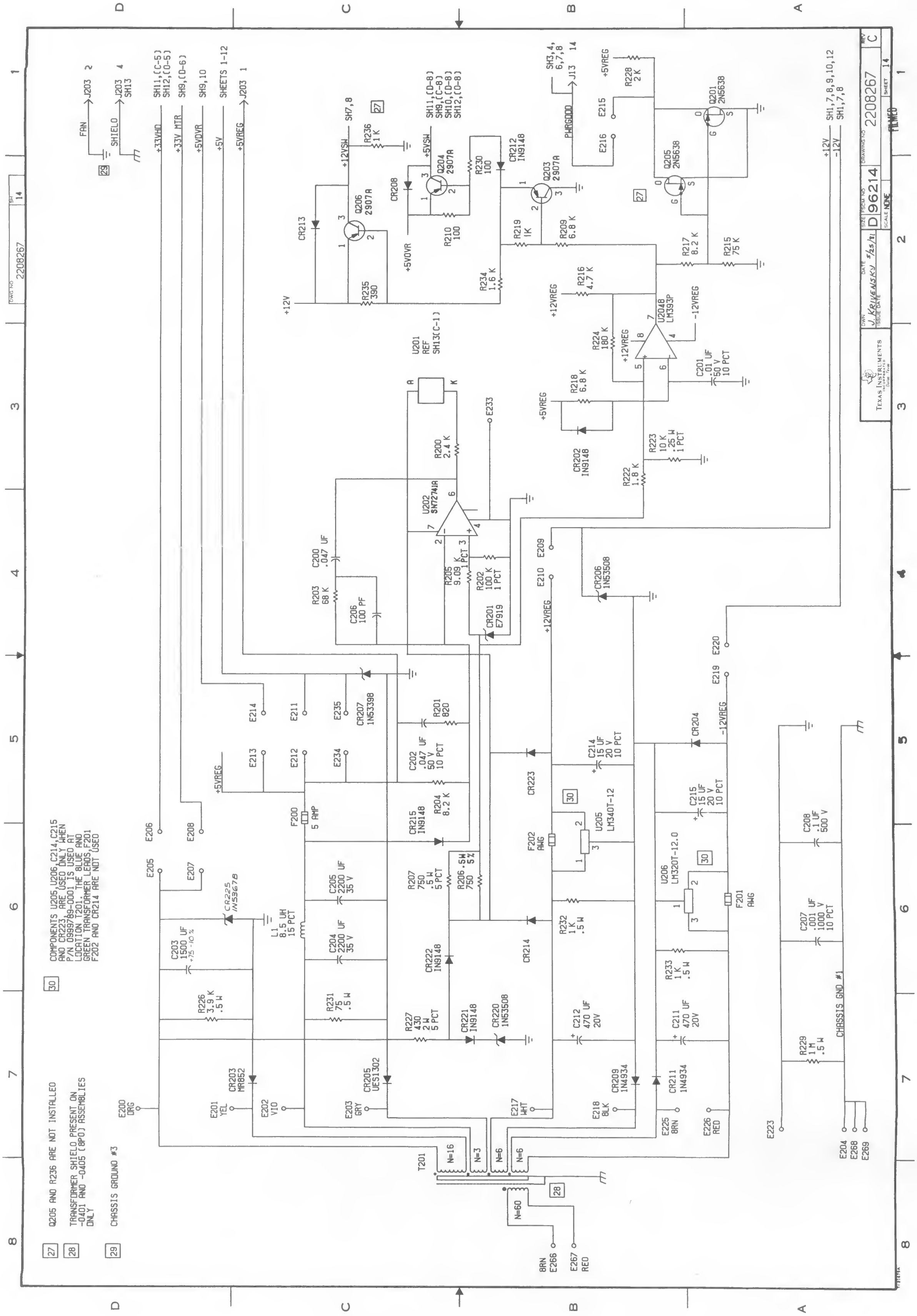
ISSUE DATE

SIZE D FSCM NO 96214 DRAWING NO 2208267 REV D

SCALE NONE SHEET 13

DWG NO 2208267 SH 13

FILMED


2208267
Q205 AND R236 ARE NOT INSTALLED
TRANSFORMER SHIELD PRESENT ON -0401 AND -0405 (8PO) ASSEMBLIES ONLY
CHASSIS GROUND #3
COMPONENTS U205,U206,C214,C215 AND CR223, ARE USED ONLY WHEN P/N 0999789-0001 IS USED AT LOCATION T201. THE BLUE AND GREEN TRANSFORMER LEADS,F201 F202 AND CR214 ARE NOT USED
FAN
SHIELD
J203 2
J203 4
SH13
+33VHD
+33V MTR
+5VDVR
+5V
+5VREG
SH11,(C-5) SH12,(D-5)
SH9,(D-6)
SH9,10
SHEETS 1-12
J203 1
+12VSW
SH7,8
R236 1 K
Q206 2907A
CR213
R235 390
+12V
Q204 2907A
+5VSW
SH11,(D-8) SH9,(C-8) SH10,(D-8) SH12,(D-8)
CR208
R210 100
R230 100
+5VDVR
CR212 IN9148
Q203 2907A
R219 1K
R209 6.8 K
R234 1.6 K
PWRGOOD
J13 14
SH3,4, 6,7,8
E215
E216
+5VREG
R228 2 K
Q201 2N5638
Q205 2N5638
R217 8.2 K
R215 75 K
R216 4.7 K
+12VREG
U204B LM393P
-12VREG
R224 180 K
C201 .01 UF 50 V 10 PCT
R218 6.8 K
CR202 IN9148
R223 10 K .25 W 1 PCT
R222 1.8 K
U201 REF SH13(C-1)
E233
R200 2.4 K
U202 SN72741R
C200 .047 UF
R203 68 K
C206 100 PF
R205 9.09 K 1 PCT
R202 100 K 1 PCT
CR201 E7919
E209
E210
CR206 IN5350B
E220
E219
E214
E211
E235
CR207 IN5339B
R201 820
E213
E212
E234
C202 .047 UF 50 V 10 PCT
C214 15 UF 20 V 10 PCT
CR204
F200 5 AMP
CR215 IN9148
R204 8.2 K
CR223
U205 LM340T-12
F202 AWG
C215 15 UF 20 V 10 PCT
U206 LM320T-12.0
F201 AWG
C208 .1 UF 500 V
E206
E208
E205
E207
CR225 IN5367B
R207 750 .5 W 5 PCT
R206 .5W 750 5%
C205 2200 UF 35 V
C204 2200 UF 35 V
L1 8.5 UH 15 PCT
C203 1500 UF +75 -10 %
CR222 IN9148
CR214
R232 1 K .5 W
R233 1 K .5 W
C207 .001 UF 1000 V 10 PCT
R226 3.9 K .5 W
R231 75 .5 W
R227 430 2 W 5 PCT
CR221 IN9148
CR220 IN5350B
C212 470 UF 20V
C211 470 UF 20V
CHASSIS GND #1
R229 1 M .5 W
CR203 MR852
CR205 UES1302
CR209 IN4934
CR211 IN4934
E200 ORG
E201 YEL
E202 VIO
E203 GRY
E217 WHT
E218 BLK
E225 BRN
E226 RED
E223
E204 E268 E269
T201
N=16
N=3
N=6
N=6
N=60
BRN E266
E267 RED
SH1,7,8,9,10,12
SH1,7,8
TEXAS INSTRUMENTS
J. KRIVENSKY 5/25/81
D 96214
2208267
SCALE NONE
SHEET 14
C
FILMED

APPENDIX A
CHARACTER SET DOT MATRIX

Included in this appendix are the dot matrices of available character sets as printed by the Model 825 KSR and RO terminals. Ordering information for the various character sets is contained in Appendix C.

USASCII
Control Characters
European Characters
APL
Katakana

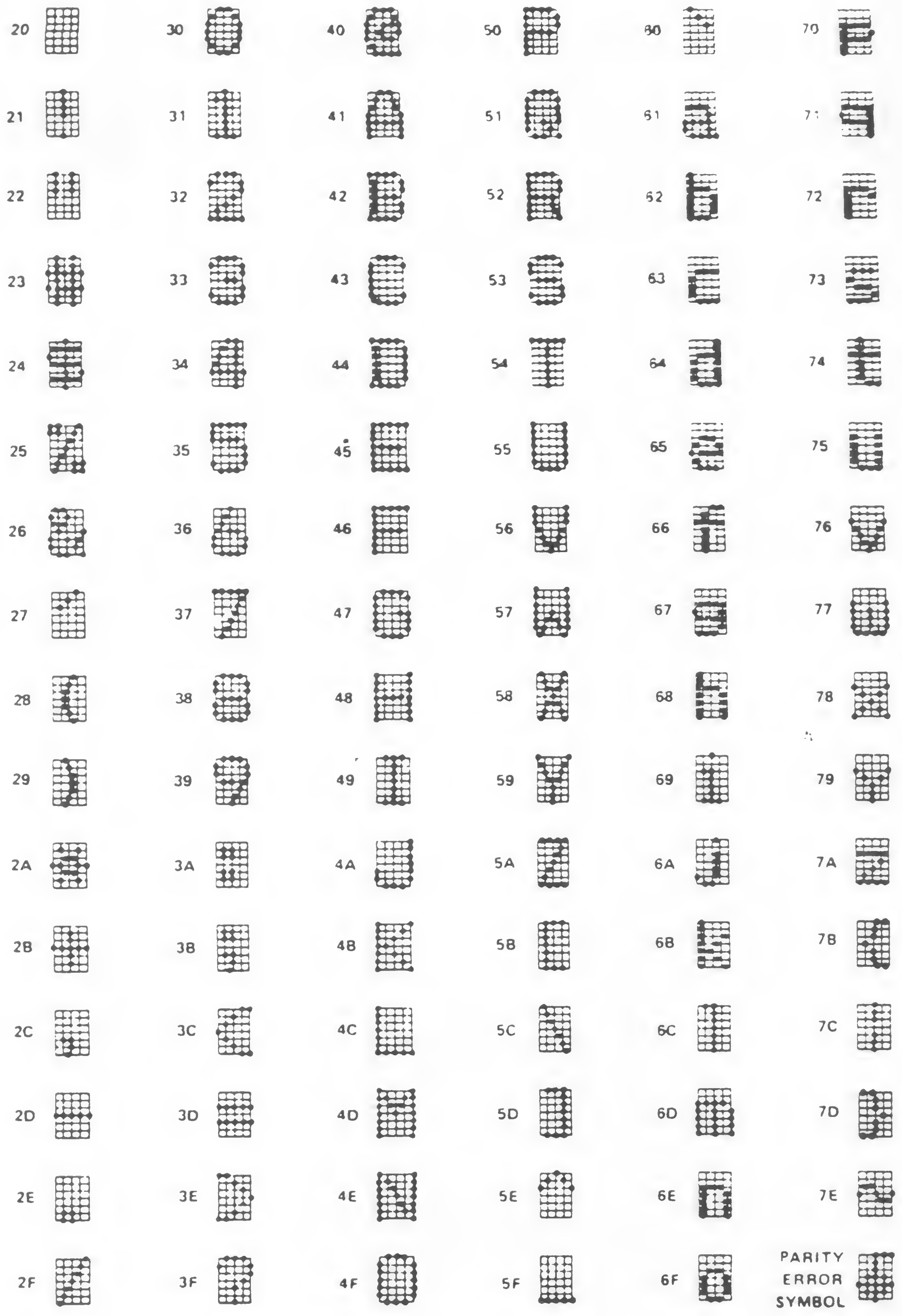


Figure A-1. Standard USASCII Character Font

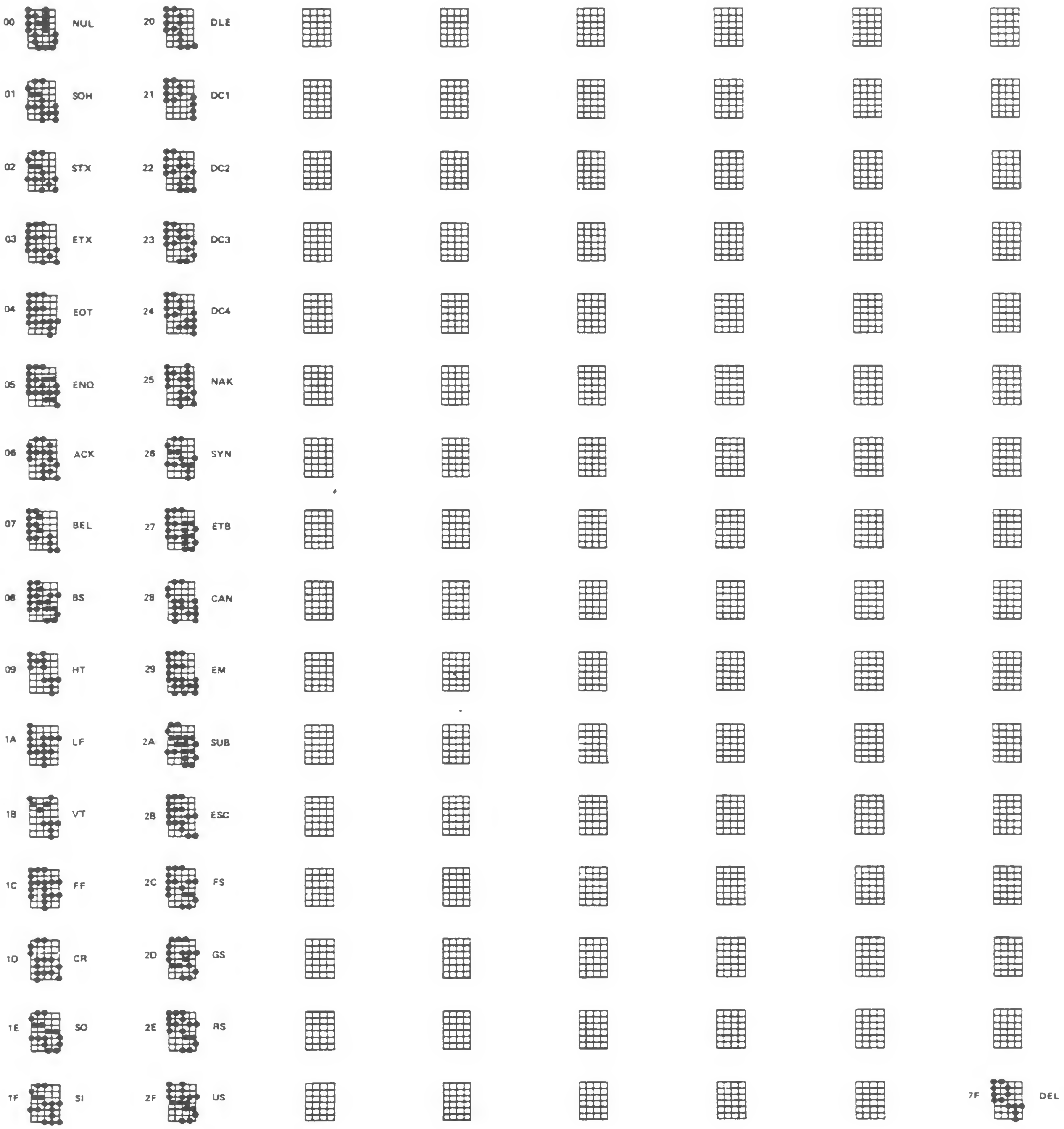


Figure A-2. Control Character Font

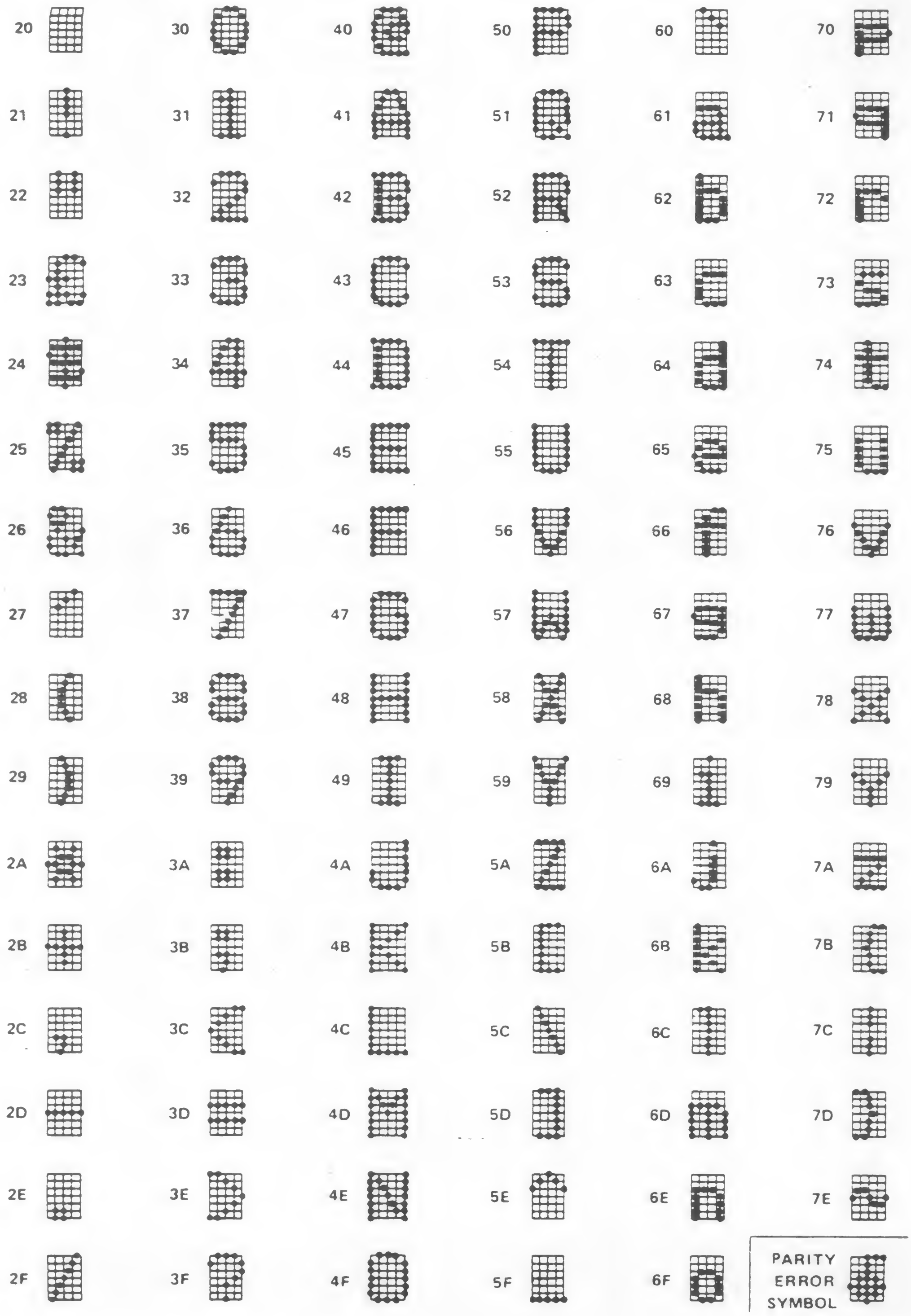


Figure A-3. United Kingdom Character Font

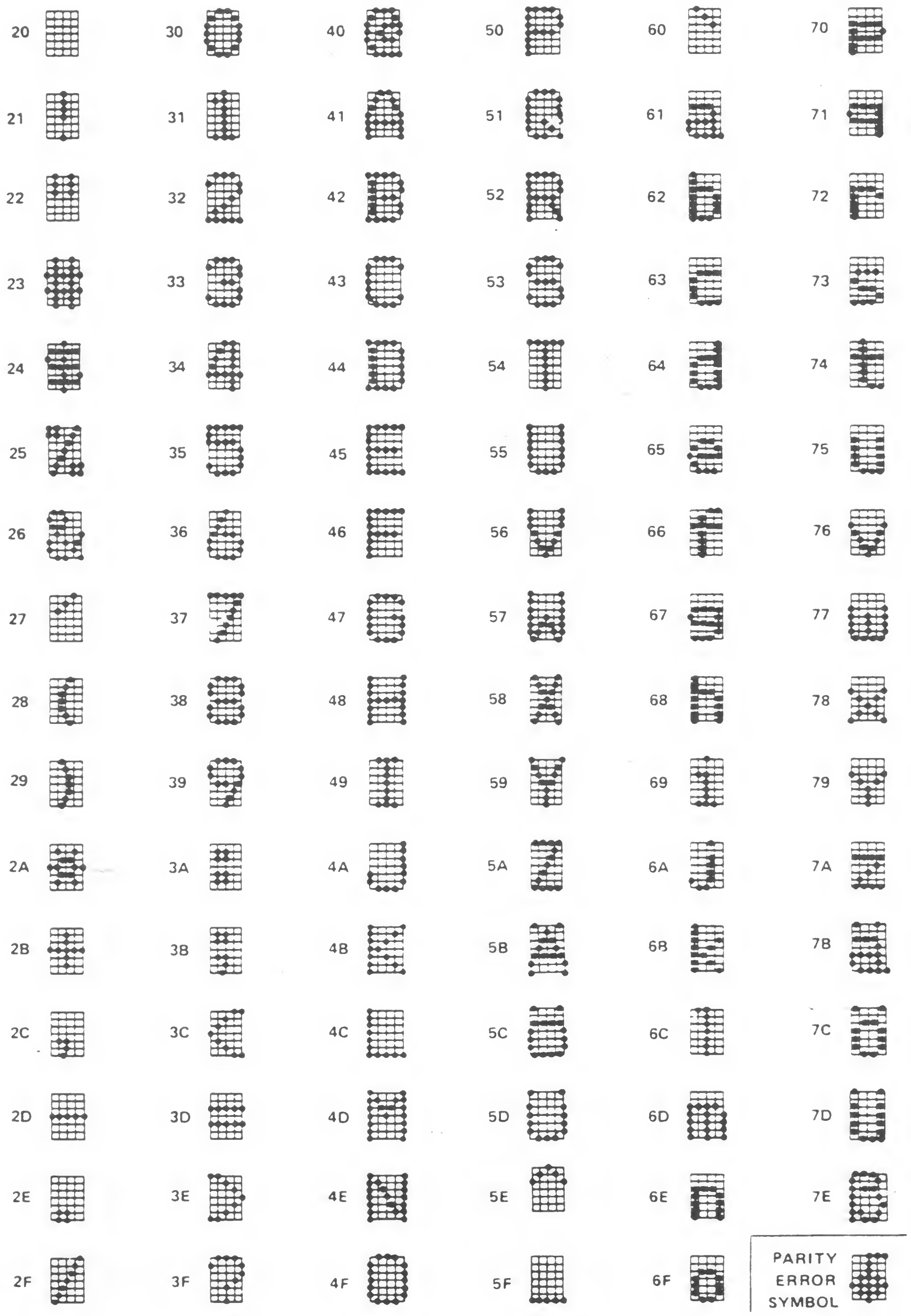


Figure A-4. German Character Font

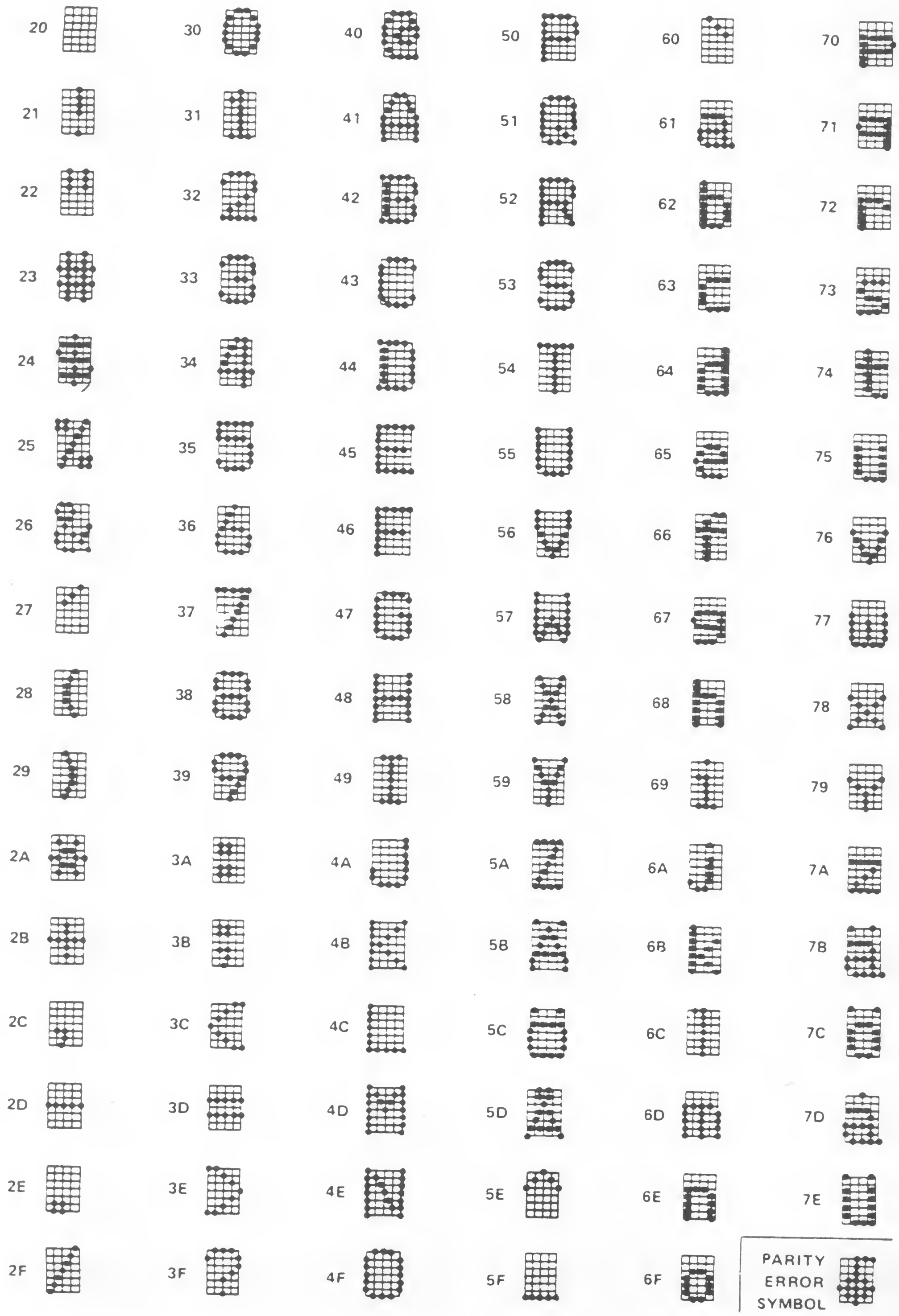


Figure A-5. Swedish/Finnish Character Font

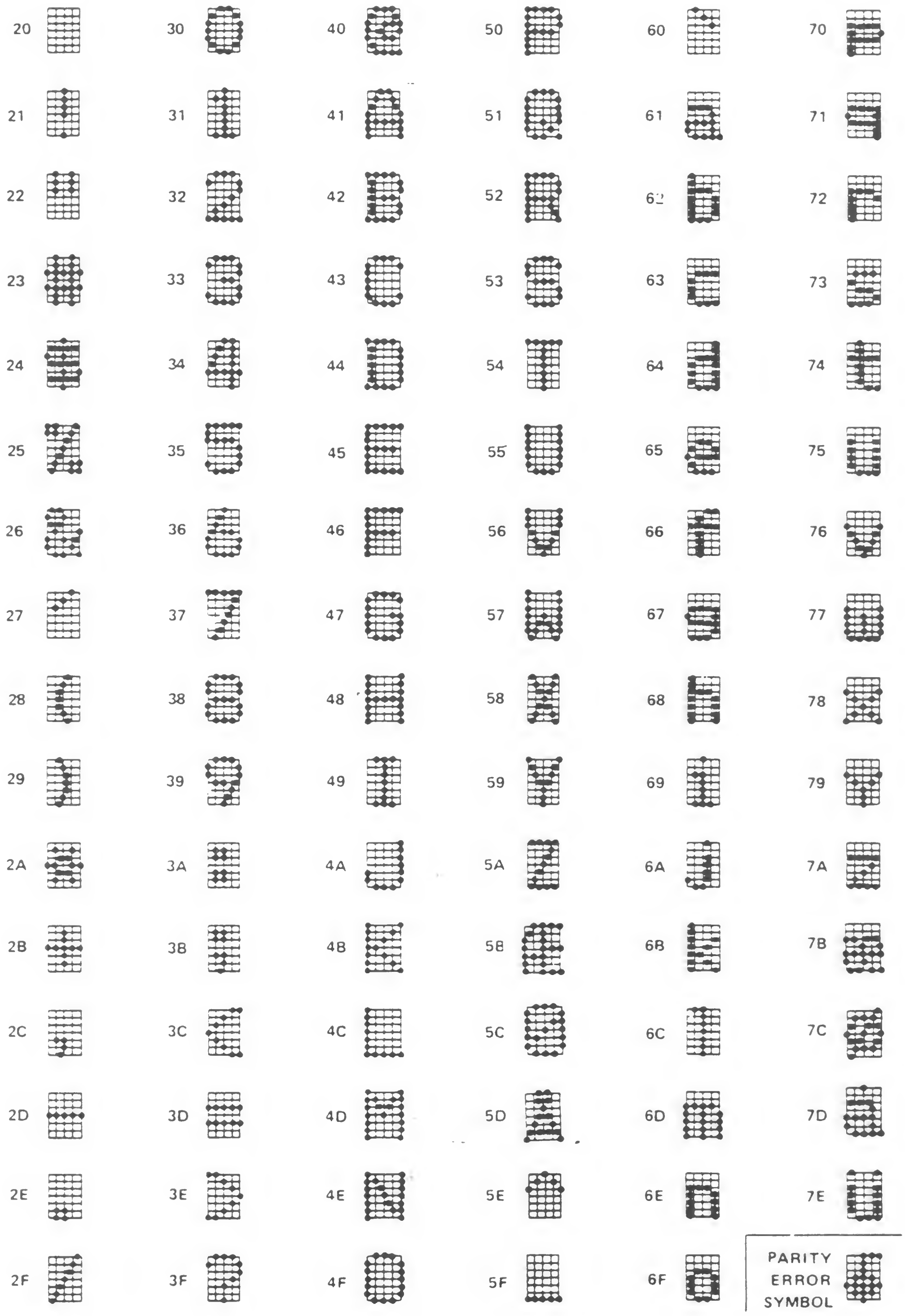


Figure A-6. Denmark/Norway Character Set

2206552-52

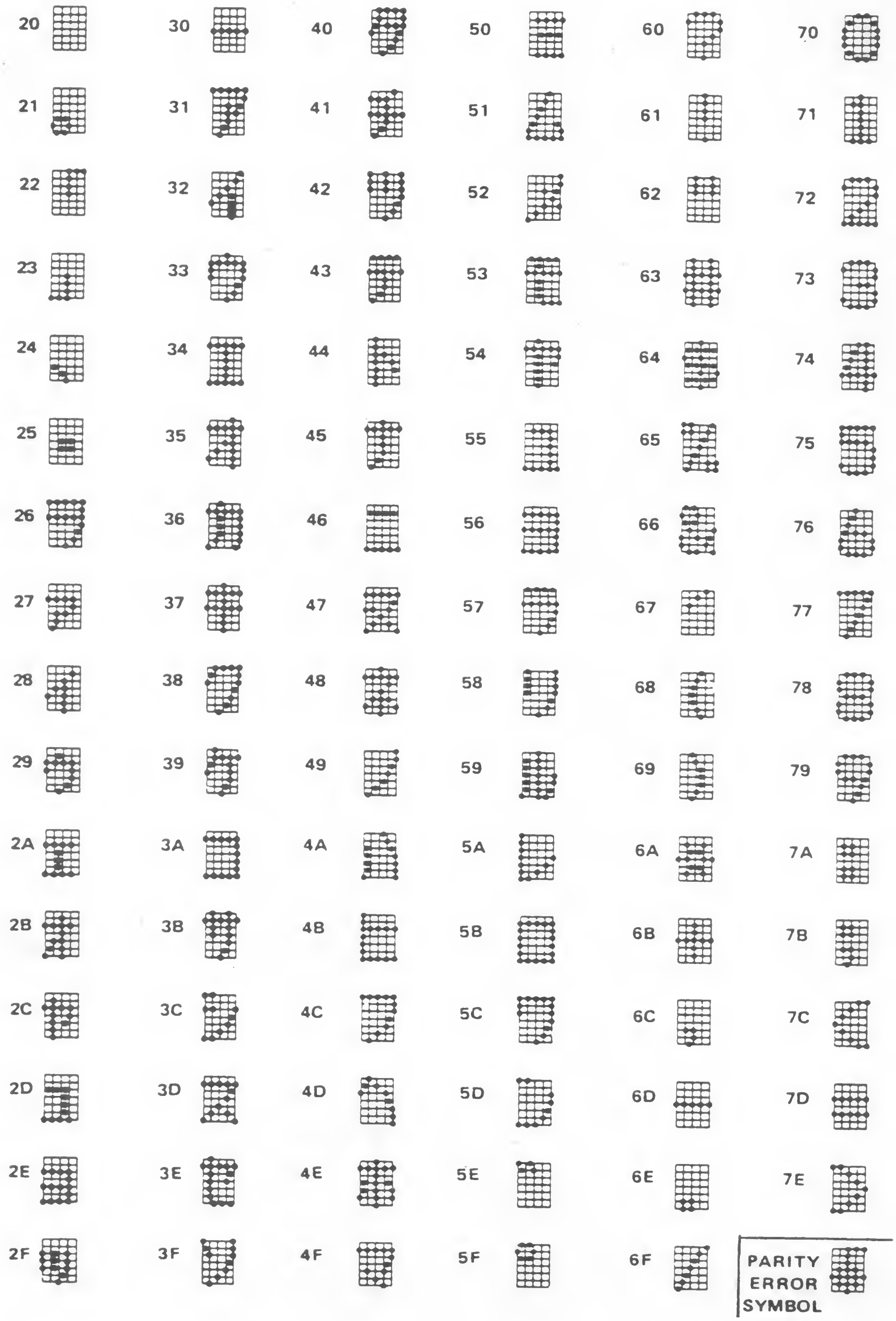


Figure A-7. Standard Katakana Character Font

2206552-53

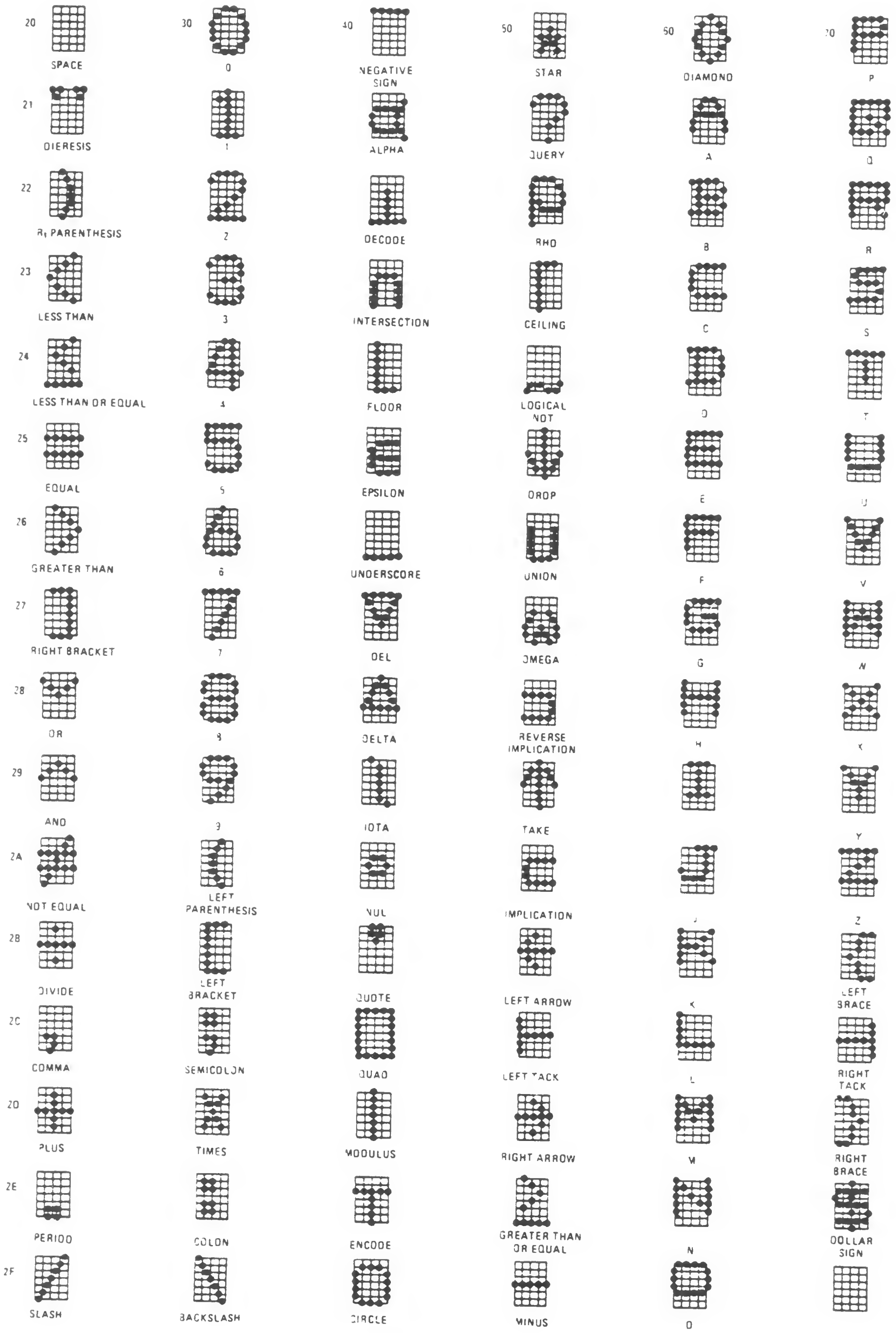


Figure A-8. APL Character Font

2206552-54

APPENDIX B
USASCII/APL CODES

The following codes are recognized by the Model 820 KSR.

ASCII/APL CHARACTER Set. The USASCII/APL character set is shown in Table B-1. Tables B-2 through B-6 list and define the optional character set codes.

Table B-1. USASCII/APL Character Set

	CONTROL CODE														
	ASCII or APL		ASCII						APL						
COLUMN	0	1	2	3	4	5	6	7	2	3	4	5	6	7
ROW 0	NUL	DLE	SP	0	@	P	`	p	SPACE	0	–	*	◇	P
1	SOH	DC1	!	1	A	Q	a	q	¨	∣	∝	?	A	Q
2	STX	DC2	"	2	B	R	b	r	)	2	⊥	ρ	B	R
3	ETX	DC3	#	3	C	S	c	s	<	3	∩	⌈	C	S
4	EOT	DC4	$	4	D	T	d	t	≤	4	⌊	~	D	T
5	ENQ	NAK	%	5	E	U	e	u	=	5	ϵ	↓	E	U
6	ACK	SYN	&	6	F	V	f	v	>	6	—	∪	F	V
7	BEL	ETB	'	7	G	W	g	w	]	7	∇	ω	G	W
8	BS	CAN	(	8	H	X	h	x	∨	8	Δ	⊃	H	X
9	HT	EM	)	9	I	Y	i	y	∧	9	ι	↑	I	Y
A	LF	SUB	*	:	J	Z	j	z	≠	(	∘	⊂	J	Z
B	VT	ESC	+	;	K	[	k	{	÷	[	'	←	K	{
C	FF	FS	,	<	L	\	l	¦	,	;	⎕	⊢	L	⊣
D	CR	GS	—	=	M	]	m	}	+	×	∣	→	M	}
E	SO	RS	.	>	N	∧	n	~	.	:	⊤	≥	N	$
F	SI	US	/	?	O	—	o	DEL	/	\	○	-	O	DEL

NOTE: Row and column designators are base 16 (hexadecimal) and a character is defined by a two-digit (Column/Row) hex number (e.g., ASCII M = 4D)

The ASCII control characters are generated on the Model 825 KSR by simultaneously depressing the CTRL key and the keys shown in Figure B-1. It is not possible for the operator to initiate any character transmissions from the Model 825 RO.

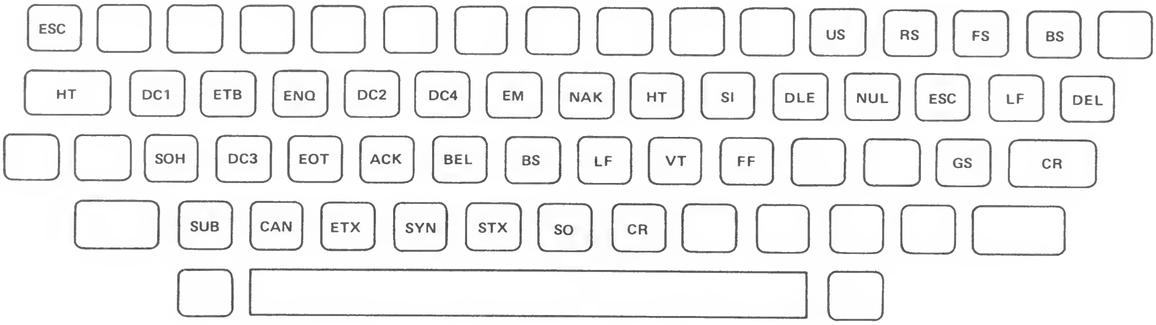


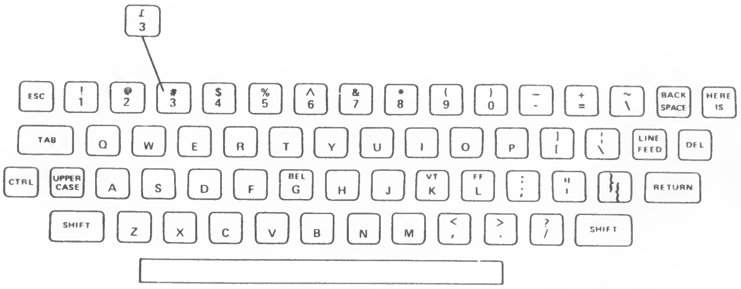
Figure B-1. Model 825 KSR Control Character Keyboard Layout

2206552-55

Table B-2. UKASCII Code Chart

COLUMN / ROW	0	1	2	3	4	5	6	7
0	NUL	DLE	SP	0	@	P	`	p
1	SOH	DC1	!	1	A	Q	a	q
2	STX	DC2	"	2	B	R	b	r
3	ETX	DC3	£	3	C	S	c	s
4	EOT	DC4	$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	'	7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	VT	ESC	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	¦
D	CR	GS	—	=	M	]	m	}
E	SO	RS	•	>	N	∧	n	~
F	SI	US	/	?	O	—	o	DEL

Keytop	TI Part No.
£ 3	2210282-0009



2206552-56

Figure B-2. English Keyboard (UKF), Model 825 KSR Only

Table B-3. German ASCII Code Chart

COLUMN	0	1	2		4	5	6	7
ROW 0	NUL	DLE	SP	0	@	P	`	p
1	SOH	DC1	!	1	A	Q	a	q
2	STX	DC2	''	2	B	R	b	r
3	ETX	DC3	#	3	C	S	c	s
4	EOT	DC4	$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	'	7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	VT	ESC	+	;	K	Ä	k	ä
C	FF	FS	,	<	L	Ö	l	ö
D	CR	GS	—	=	M	Ü	m	ü
E	SO	RS	•	>	N	∧	n	β
F	SI	US	/	?	O	—	o	DEL

Keytop	TI Part No.
\ β	2210282-0007
" '	(Keyboard)
Ü	2210282-0006
Z	(Keyboard)
Y	(Keyboard)
Ö	2210282-0005
Ä	2210282-0004
? /	(Keyboard)

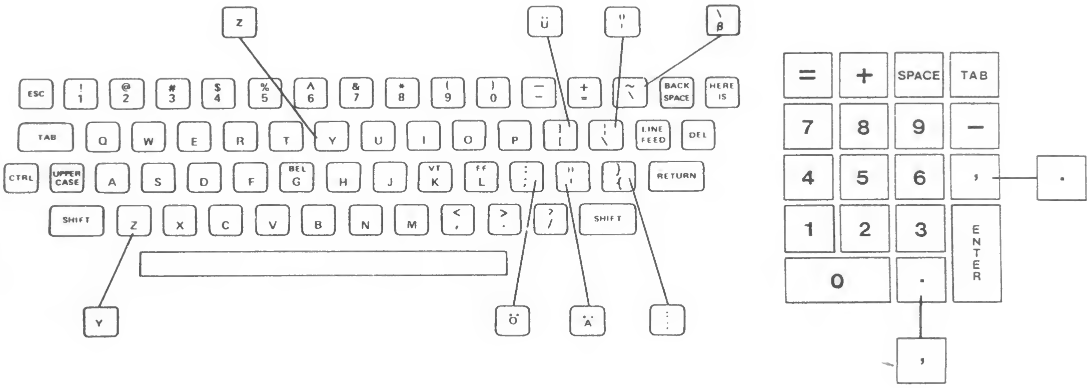


Figure B-3. Model 825 KSR German Keyboard Option

2206552-57

Table B-4. Swedish/Finnish ASCII Code Chart

COLUMN / ROW	0	1	2	3	4	5	6	7
0	NUL	DLE	SP	0	@	P	`	p
1	SOH	DC1	!	1	A	Q	a	q
2	STX	DC2	″	2	B	R	b	r
3	ETX	DC3	#	3	C	S	c	s
4	EOT	DC4	$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	'	7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	VT	ESC	+	;	K	Ä	k	ä
C	FF	FS	,	<	L	Ö	l	ö
D	CR	GS	—	=	M	Å	m	å
E	SO	RS	•	>	N	∧	n	ü
F	SI	US	/	?	O	—	o	DEL

Keytop	TI Part No.
Å	2210282-0002
" '	(Keyboard)
\ ü	2210282-0001
Ö	2210282-0005
Ä	2210282-0004
: ;	(Keyboard)

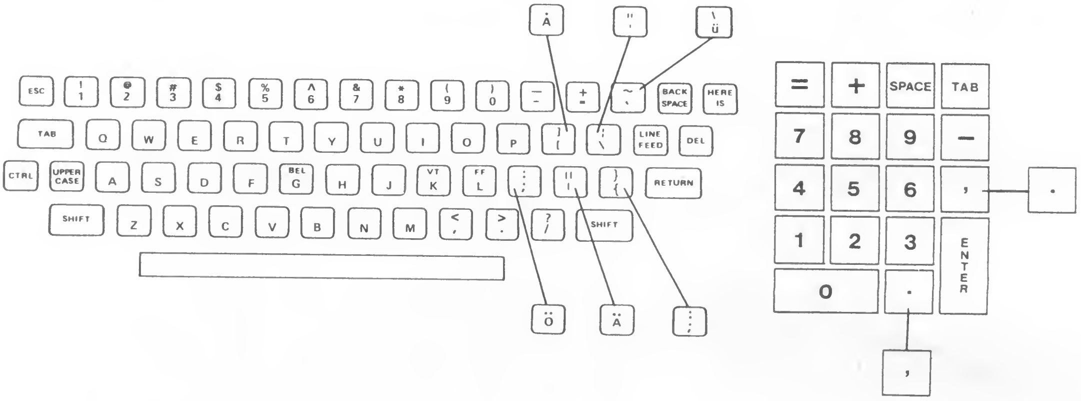


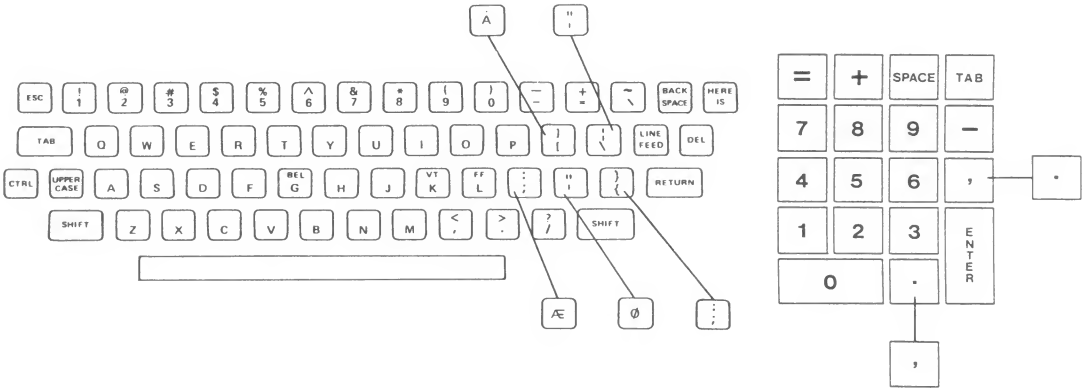
Figure B-4. Danish/Norwegian Code Chart

2206552-58

Table B-5. Danish/Norwegian Code Chart

COLUMN / ROW	0	1	2	3	4	5	6	7
0	NUL	DLE	SP	0	@	P	`	p
1	SOH	DC1	!	1	A	Q	a	q
2	STX	DC2	''	2	B	R	b	r
3	ETX	DC3	#	3	C	S	c	s
4	EOT	DC4	$	4	D	T	d	t
5	ENQ	NAK	%	5	E	U	e	u
6	ACK	SYN	&	6	F	V	f	v
7	BEL	ETB	'	7	G	W	g	w
8	BS	CAN	(	8	H	X	h	x
9	HT	EM	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	VT	ESC	+	;	K	Æ	k	æ
C	FF	FS	,	<	L	Ø	l	ø
D	CR	GS	—	=	M	Å	m	å
E	SO	RS	•	>	N	∧	n	~
F	SI	US	/	?	O	—	o	DEL

Keytop	TI Part No.
Å	2210282-0002
" '	(Keyboard)
Æ	2210282-0003
Ø	2210282-0008
: ;	(Keyboard)

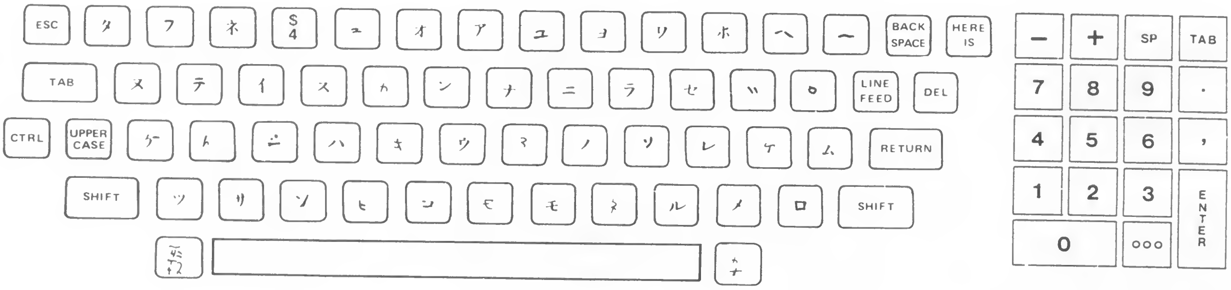

Å
" '
ESC ! 1 @ 2 # 3 $ 4 % 5 ^ 6 & 7 * 8 (9) 0 — — + = ~ \ BACK SPACE HERE IS
TAB Q W E R T Y U I O P } [| \ LINE FEED DEL
CTRL UPPER CASE A S D F BEL G H J VT K FF L : ; " ' } { RETURN
SHIFT Z X C V B N M < , > . ? / SHIFT
Æ
Ø
: ;
= + SPACE TAB
7 8 9 —
4 5 6 ,
1 2 3 ENTER
0 .
.
,

2206552-59

Figure B-5. Danish/Norwegian Keyboard (DNF) and Optional Numeric Pad, Model 825 KSR Only

Table B-6. Standard Katakana Code Chart

	CONTROL FOR BOTH KANA & ASCII		U. S. ASCII MODE						KATAKANA MODE					
COLUMN / ROW	0	1	2	3	4	5	6	7	2	3	4	5	6	7
0	NUL	DLE	SP	0	@	P	`	p	SPACE	—	タ TA	ミ MI	?	0
1	SOH	DC1	!	1	A	Q	a	q	。	ア A	ナ CHI	ム MU	!	1
2	STX	DC2	"	2	B	R	b	r	「	イ I	ツ TSU	メ ME	"	2
3	ETX	DC3	#	3	C	S	c	s	」	ウ U	テ TE	モ MO	#	3
4	EOT	DC4	$	4	D	T	d	t	、	エ E	ト TO	ヤ YA	$	4
5	ENQ	NAK	%	5	E	U	e	u	•	オ O	ナ NA	ユ YU	%	5
6	ACK	SYN	&	6	F	V	f	v	ヲ O	カ KA	ニ NI	ヨ YO	&	6
7	BEL	ETB	`	7	G	W	g	w	ァ A	キ KI	ヌ NU	ラ RA	'	7
8	BS	CAN	(	8	H	X	h	x	ィ I	ク KU	ネ NE	リ RI	(	8
9	HT	EM	)	9	I	Y	i	y	ゥ U	ケ KE	ノ NO	ル RU	)	9
A	LF	SUB	*	:	J	Z	j	z	ェ E	コ KO	ハ HA	レ RE	*	:
B	VT	ESC	+	;	K	[	k	}	ォ O	サ SA	ヒ HI	ロ RO	+	;
C	FF	FS	,	<	L	¥ YEN	l	¦	ャ YA	シ SHI	フ FU	ワ WA	,	<
D	CR	GS	-	=	M	]	m	}	ュ YU	ス SU	ヘ HE	ン N	—	=
E	SO	RS	.	>	N	∧	n	~	ョ YO	セ SE	ホ HO	"	•	/
F	SI	US	/	?	O	' —	o	DEL	ッ TSU	ソ SO	マ MA	°	/	DEL



2206552-60

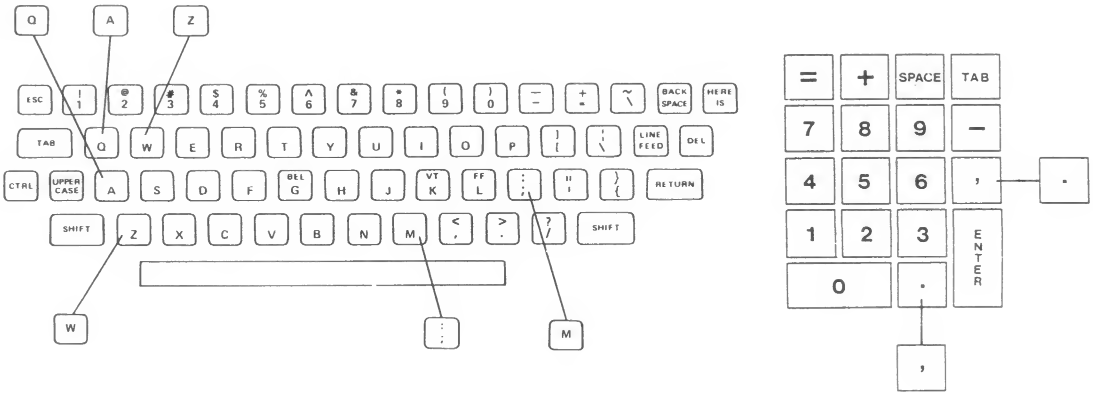
Figure B-6. Model 825 KSR Katakana Keyboard Option

Table B-7. USASCII/APL Character Set

	CONTROL CODE ASCII or APL		ASCII						APL					
COLUMN	0	1	2	3	4	5	6	7	2	3	4	5	6	7
ROW 0	NUL	DLE	SP	0	@	P	`	p	SPACE	0	–	*	◇	P
1	SOH	DC1	!	1	A	Q	a	q	¨	|	⍺	?	A	Q
2	STX	DC2	"	2	B	R	b	r	)	2	⊥	⍴	B	R
3	ETX	DC3	#	3	C	S	c	s	<	3	∩	⌈	C	S
4	EOT	DC4	$	4	D	T	d	t	≤	4	⌊	∼	D	T
5	ENQ	NAK	%	5	E	U	e	u	=	5	∊	↓	E	U
6	ACK	SYN	&	6	F	V	f	v	>	6	_	∪	F	V
7	BEL	ETB	'	7	G	W	g	w	]	7	∇	⍵	G	W
8	BS	CAN	(	8	H	X	h	x	∨	8	∆	⊃	H	X
9	HT	EM	)	9	I	Y	i	y	∧	9	⍳	↑	I	Y
A	LF	SUB	*	:	J	Z	j	z	≠	(	∘	⊂	J	Z
B	VT	ESC	+	;	K	[	k	{	÷	[	'	←	K	{
C	FF	FS	,	<	L	\	l	¦	,	;	⎕	⊢	L	⊣
D	CR	GS	—	=	M	]	m	}	+	×	|	→	M	}
E	SO	RS	.	>	N	^	n	~	.	:	⊤	≥	N	$
F	SI	US	/	?	O	—	o	DEL	/	\	○	-	O	DEL

NOTE: Row and column designators are base 16 (hexadecimal) and a character is defined by a two-digit (Column/Row) hex number (e.g., ASCII M=4D)

Keytop	TI Part No.
Q	(Keyboard)
A	(Keyboard)
Z	(Keyboard)
W	(Keyboard)
: ;	(Keyboard)
M	(Keyboard)



2206552-61

Figure B-7. French Keyboard (FRF) and Optional Numeric Pad, Model 825 KSR Only

APPENDIX C
MODEL 825 KSR/RO TERMINALS OPTIONS AND ACCESSORIES

Tables C1 and C2 list available options, accessories, and their part numbers and configuration abbreviations.

Table C-1. Model 825 KSR and RO Terminal Options

Description	TI Part Number	Configuration Abbreviation
Keyboard Assembly Options (One Only)		
Keyboard Assembly, Full ASCII	2207418-0101	KFS
Keyboard Assembly, Full ASCII, with Numeric Pad	2207418-0102	KFN
Keyboard Assembly, APL	2207418-0201	KAS
Keyboard Assembly, APL, with Numeric Pad	2207418-0202	KAN
Keyboard Assembly, European	2207418-0301	KES
Keyboard Assembly, European, with Numeric Pad	2207418-0302	KEN
Keyboard Assembly, Katakana	2207424-0001	KKS
Keyboard Assembly, Katakana, with Numeric Pad	2207424-0002	KKN
Control Panel Assembly, Model 825 RO	2207417-0001	KCP
Control Panel Assembly, Model 825 RO, APL	2207417-0002	KAP
Control Panel Assembly, Model 825 RO, Katakana	2207417-0003	KKP
PROM/ROM Options		
Kit, Device/Forms Control ROM	0999836-0001	MFG
Kit, Configuration PROM	2207630-0001	MDP/MPP
Kit, Protected ABM PROM	2207630-0002	MAP
Character Set Subobptions (One Only)		
Kit, Character Set, United Kingdom, ASCII (KSR)	2207441-0001	UKF
Kit, Character Set, Denmark/Norway, ASCII (KSR)	2207442-0001	DNF
Kit, Character Set, Sweden/Finland, ASCII (KSR)	2207443-0001	SFF
Kit, Character Set, France, ASCII (KSR)	2207444-0001	FRF
Kit, Character Set, Germany, ASCII (KSR)	2207445-0001	GRF
Kit, Character Set, United Kingdom, ASCII (RO)	2207441-0002	UKF
Kit, Character Set, Denmark/Norway, ASCII (RO)	2207442-0002	DNF
Kit, Character Set, Sweden/Finland, ASCII (RO)	2207443-0002	SFF
Kit, Character Set, France, ASCII (RO)	2207444-0002	FRF
Kit, Character Set, Germany, ASCII (RO)	2207445-0002	GRF
Stand Options		
Stand, w/o Top	0999841-0001	
Basket Kit, Paper-Stand	0999839-0001	
Interface Options		
Kit, Current-Loop Interface	0999734-0001	CTY
Keyboard Assembly Options (Field-Installed Only)		
Kit, Keyboard Assembly, Full ASCII	2207418-8101	KFS
Kit, Keyboard Assembly, Full ASCII, with Numeric Pad	2207418-8102	KFN
Kit, Keyboard Assembly, APL	2207418-8201	KAS
Kit, Keyboard Assembly, APL with Numeric Pad	2207418-8202	KAN
Kit, Keyboard Assembly, European	2207418-8301	KES
Kit Keyboard Assembly, European, with Numeric Pad	2207418-8302	KEN
Kit, Keyboard Assembly, Katakana	2207424-8001	KKS
Kit, Keyboard Assembly, Katakana with Numeric Pad	2207424-8002	KKN
Kit, Control Panel Assembly, Model 825 RO	2207417-8001	KCP
Kit, Control Panel Assembly, Model 825 RO, APL	2207417-8002	KAP
Kit, Control Panel Assembly, Model 825 RO, Katakana	2207417-8003	KKP

Table C-1. Model 825 KSR and RO Terminal Options (Concluded)

Description	TI Part Number	Configuration Abbreviation
ROM/PROM Options (Field-Installed Only)		
Kit, Configuration PROM	2207630-8001	MDP/MPP
Kit, Protected ABM PROM	2207630-8002	MAP
Kit, Device/Forms Control ROM	0999836-8001	MFG
Printer Compressed Print Option (Field-Installed Only)		
Kit, Compressed Print	0999867-8001	
Character Set Suboptions (Field-Installed Only)		
Kit, Character Set, United Kingdom, Full ASCII (KSR)	2207441-8001	UKF
Kit, Character Set, Denmark/Norway, Full ASCII (KSR)	2207442-8001	DNF
Kit, Character Set, Sweden/Finland, Full ASCII (KSR)	2207443-8001	SFF
Kit, Character Set, France, Full ASCII (KSR)	2207444-8001	FRF
Kit, Character Set, Germany, Full ASCII (KSR)	2207445-8001	GRF
Kit, Character Set, United Kingdom, ASCII (RO)	2207441-8002	UKF
Kit, Character Set, Denmark/Norway, ASCII (RO)	2207442-8002	DNF
Kit, Character Set, Sweden/Finland, ASCII (RO)	2207443-8002	SFF
Kit, Character Set, France, ASCII (RO)	2207444-8002	FRF
Kit, Character Set, Germany, ASCII (RO)	2207445-8002	GRF
Interface Options (Field-Installed Only)		
Kit, Current-Loop Interface	0999734-8001	CTY

Table C-2. Model 825 Terminal Accessories

Base Description	Part Number
Basket, Kit, Paper	0999838-0001
Ribbon, Black Nylon Matrix 60 yd. (single)	0996704-0001
Ribbon, Black Nylon Matrix 60 yd. (6 pack)	0996704-0002
Ribbon, Black Nylon Matrix 40 yd. (single)	0996241-0001
Ribbon, Black Nylon Matrix 40 yd. (6 pack)	0996241-0002
Manual, Maintenance	2207436-9701
Manual, Operator's (Model 825 KSR)	2207425-9701
Manual, Operator's (Model 825 RO)	2207437-9701
Kit, Acoustic Enhancement	0999886-0001
Window, Terminal	0999713-0001
Accessory Cables	
Cable Assembly, EIA Extension	0993211-0001
Cable Assembly, Data Terminal	0993210-0001
Cable Assembly, 990 Computer	2262093-0001
Cable Assembly, Asynch/Synch EIA Data Set	2207634-0001
Cord Set, Power, Domestic	0996289-0001
Cord Set, Power, Western Europe	0996290-0001
Cord Set, Power, w/o Connector	0996348-0001
Cable Assembly, 202/212	0993205-0001

APPENDIX D
OMNI 800 MODEL 825 PRINTER RIBBON AND PAPER RECOMMENDATIONS

RIBBON

The Omni 800* Model 825 Terminal is furnished with a black nylon matrix, impact printer ribbon wound on dual spools. Replacement ribbons may be purchased from Texas Instruments in packs of six under part number 0996704-0002.

To prolong the life of your printhead, use only the above print ribbon or an equivalent available from Addressograph Multigraph Corporation under part number 116-2800-163.

PAPER

The Model 825 Terminal will accept standard, dual-sprocket-punched, continuous, business form paper in any width from 3 to 15 inches (76.2 to 38.1 mm).

Multiple-part business forms, one original and up to three copies, can be printed on paper with the following weight specifications:

Single Part Forms — 15 to 20 pounds
Multiple Part Forms — Original: 12 to 15 pounds
Copies: 9 to 12 pounds
Last Copy: 15 pounds
Carbon Paper — 7.5 pounds with medium hardness.

NOTE
Total form thickness should not exceed 0.021 inch (0.53 mm).

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APPENDIX E
INSTALLATION OF OPTIONAL KITS

This appendix contains installation instructions for the following accessory and option kits:

Terminal Stand Kit (999841-0001)
Acoustic Enhancement Kit (999886-0001)
Terminal Paper Basket (999938-0001)
Device/Forms Control Kit (999836-0001)
Configuration/Protected ABM PROM Kit (2207630-0001)
Current-Loop Option Kit (999734-0001)
European Character Set Options (2207439-9701)

TI Publication 999910-9701A
Issued 5 October 1978

INSTALLATION INSTRUCTIONS

Omni 800 TERMINAL STAND KIT

Kit Part Number 0999841-0001

1. GENERAL

The *Omni 800** Terminal Stand kit consists of a specially designed table and all necessary hardware for attachment of a Texas Instruments Model 810 or Model 820 to the stand.

2. INSTALLATION INSTRUCTIONS

The following instructions explain how to attach an *Omni 800* printer. The procedure varies from the Model 810 to the Model 820, so choose the appropriate instruction for your model.

2.1 MODEL 810 PRINTER INSTALLATION

a. Disconnect the ac power cable and the communications cable (if installed).

b. Install levelling screws in each corner of the legs as shown in Figure 1.

c. Install the modesty panel with four 6-32 screws and lockwashers as shown, and be sure the lockwashers are next to the screw heads.

d. Install the spacer panel and ring lug end of the ground cable with four 6-32 screws and lockwashers as shown. Be sure the lockwashers are next to the screw heads and the ground cable is at the rear of the left leg.

e. Mount the Model 810 printer on the stand with four 10-12 self-tapping screws as shown in the figure.

NOTE

Unequal torque to the mounting screws could cause slight deformation of the printer mechanism assembly resulting in erratic printer operation. Tighten each screw just enough to deform the rubber grommet and then back off one turn.

f. Remove the right rear screw and lockwasher from the printer rear paper chute.

g. Attach the ground cable lug to the printer with the screw and lockwasher removed in step f. Be sure the lockwasher is installed between the paper chute and the ground cable lug.

h. Place the printer and stand in the desired operating location and adjust the leg levelers as required to level the printer.

i. Reconnect the ac power cable and communications cable as required.

2.2 MODEL 820 PRINTER INSTALLATION

a. Disconnect the ac power cable and the communications cable (if installed).

b. Install levelling screws in each corner of the legs as shown in Figure 2.

c. Install the modesty panel with four 6-32 screws and lockwashers as shown, and be sure the lockwashers are next to the screwheads.

d. Install the spacer panel with four 6-32 screws and lockwashers as shown, and be sure the lockwashers are next to the screwheads.

e. Mount the Model 820 printer on the stand with four 10-32 UNC × 1¼ panhead screws and No. 10 external tooth washers.

CAUTION

Do not substitute longer screws; damage to the machine may result.

NOTE

Unequal torque to the mounting screws could cause slight deformation of the printer mechanism assembly resulting in erratic printer operation. Tighten each screw just enough to deform the rubber grommet and then back off one turn.

f. Place the printer and stand in the desired operating location and adjust the leg levelers as required to level the printer.

g. Reconnect the ac power cable and communications cable as required.

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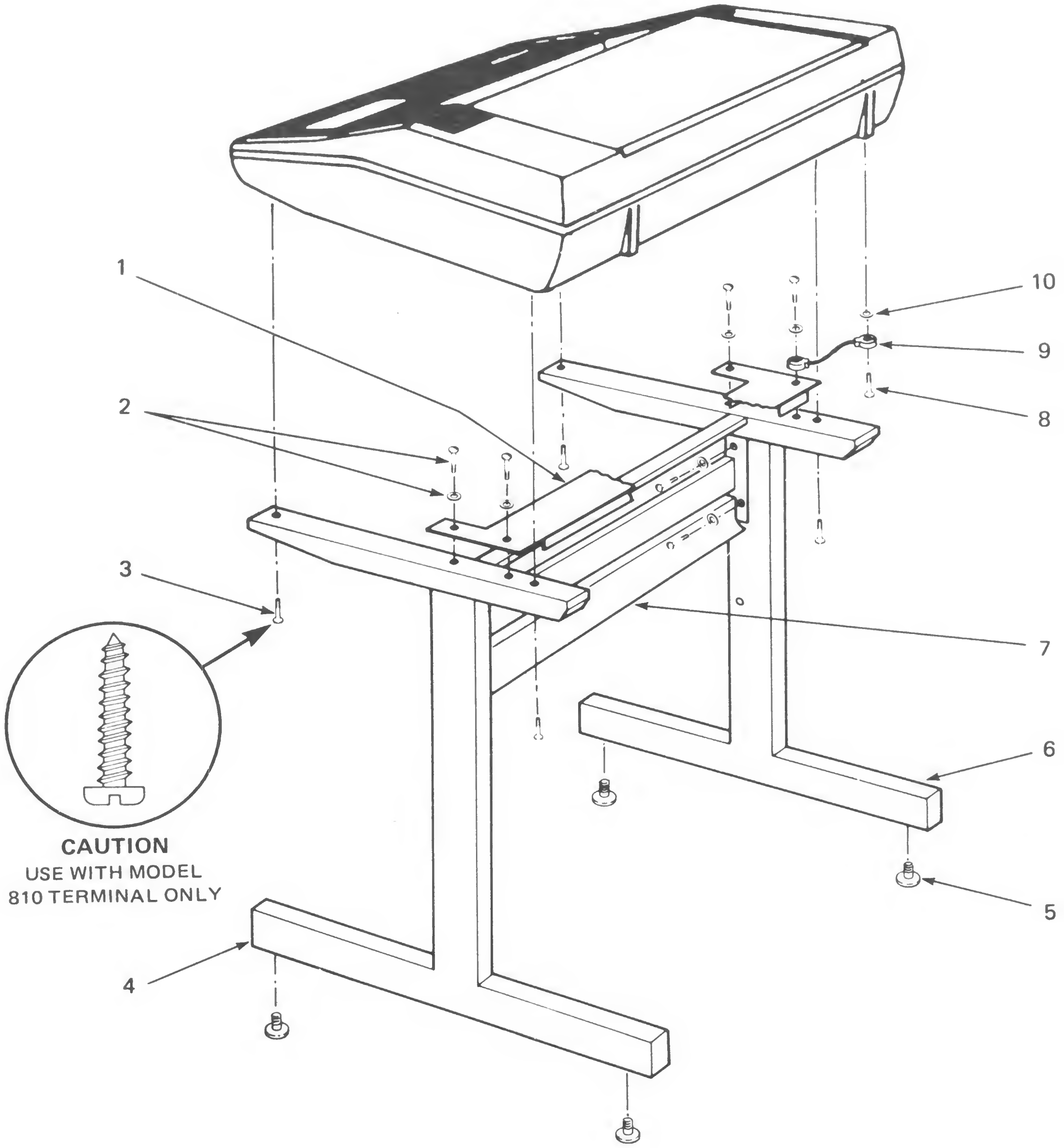
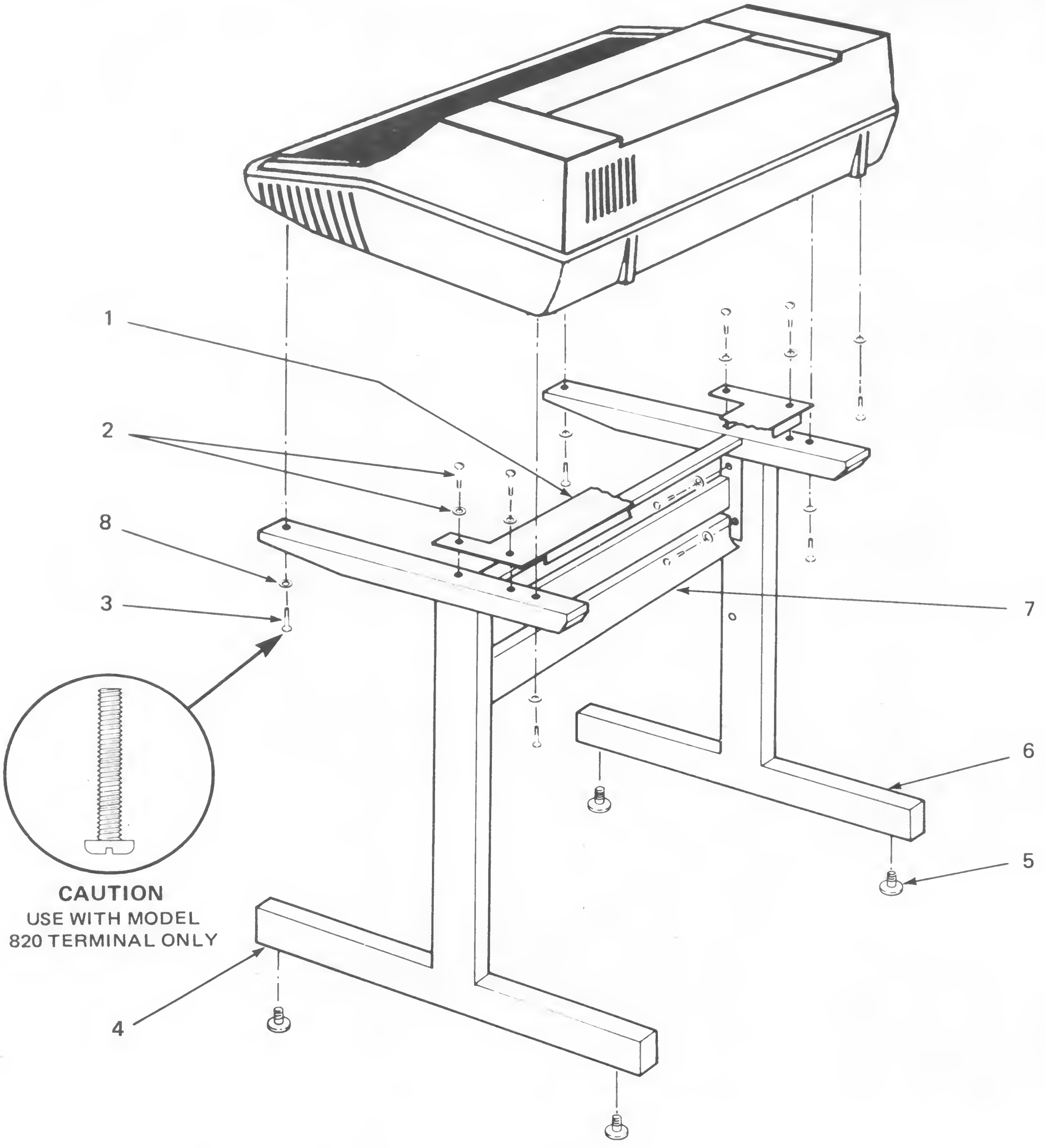


1.	Spacer panel	6.	Left leg
2.	6-32 x ½ self tapping screw and external tooth washer (8 places)	7.	Modesty panel
		8.	Existing printer screw*
3.	10-12 self tapping x 1 lg screw (4 places)	9.	Ground cable
4.	Right leg	10.	External tooth washer
5.	Leveler (4 places)		
		*	Not supplied in Kit

2206552-62

Figure 1. Model 810 Terminal Stand Kit



1.	Spacer panel	5.	Leveler (4 places)
2.	6-32 x ½ self tapping screw and external tooth washer (8 places)	6.	Left leg
3.	10-32 UNC x 1¼ panhead screw (4 places)	7.	Modesty panel
4.	Right leg	8.	No. 10 external tooth washer (4 places)

2206552-63

Figure 2. Model 820/825 Terminal Stand Kit

TI Publication 0999900-9701
Issued 1 March 1979

INSTALLATION INSTRUCTIONS
*OMNI 800** Acoustic Enhancement Kit for the Model 820 Data Terminal
Part Number 0999886-0001

1. PARTS FURNISHED

The Model 820 Acoustic Enhancement Kit consists of three major assemblies:

- **Insulator Pad** — is placed under the terminal; the insulator pad adheres to the terminal base by its self-adhesive coating.
- **Air Exhaust Cover** — is attached over the 12 air exhaust slots at the rear of the terminal using three slotted hex screws (see Figure 1).

NOTE

Some versions of the air exhaust cover simply snap into position.

- **Damper** — to be attached atop the terminal using four screws, two larae washers, and two small washers (see Figure 1).

2. INSTALLATION

Disconnect the communications cable and the power cord from the rear of the terminal to prevent possible electrical shock and proceed with the following steps in the order presented.

2.1 INSULATOR PAD

If the terminal is secured to an *OMNI 800* accessory stand or to a table, first remove any fasteners so that the terminal may be lifted freely.

a. Lift the terminal cover and remove the two ribbon spools and the ribbon and set aside. Close the terminal cover.

NOTE

Seek the help of another person, if available, to complete some of the following steps.

b. With the aid of another person, carefully turn the terminal upside down on a softly padded surface (use a sheet of sponge rubber, a blanket, or some other soft material to prevent marring the terminal cover).

c. Remove the protective paper from the insulator pad and attach the adhesive side of the pad to the terminal base. Take care to align the slot in the pad over the paper feed slot in the terminal base. Press the pad to cause it to adhere to the base.

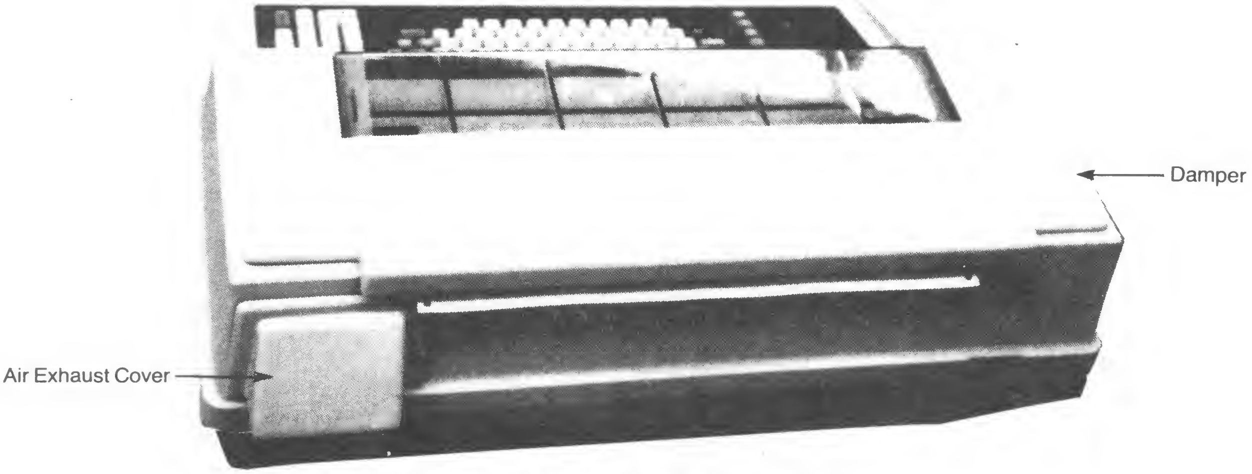


Figure 1. Acoustic Enhancement Kit Major Components

2206552-64

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*Trademark of Texas Instruments Incorporated

d. With the aid of another person, carefully turn the terminal right side up, place the terminal on a large work surface, and proceed to the *air exhaust cover* installation instructions below.

2.2 AIR EXHAUST COVER

The air exhaust cover is designed to direct noise and cooling air down and away from the operator.

NOTE

The air exhaust cover is supplied in two versions: One version attaches to the rear air outlet using three screws; the other version simply snaps into place.

a. If your air exhaust cover has three "hooks" extending from the inside, simply hook the bottom two hooks into the far right and far left air slots, and press the top of the air exhaust cover inward to snap the single top hook into place.

OR

b. If the inside of your air exhaust cover has three posts with screw holes in their centers, proceed as follows:

(1) Lift up the terminal cover until the plastic stay at the inside right rear locks, holding the cover about 45 degrees from horizontal.

(2) Holding the terminal cover in one hand, grasp the top of the plastic cover stay (see Figure 2) with the other hand and move the stay to the right until it clears the mounting pin.

(3) The terminal cover now can be swung back on its hinges to rest, upside down, on a table top or other surface.

(4) Lift the terminal cover so that it is approximately perpendicular to the table. Ask someone to hold the terminal cover in this position, or prop it with several books, blocks, etc.

(5) Place the air exhaust cover over the outside of the 12 air vents in the right rear corner of the terminal cover. Hold in place with one hand while *starting* the three screws through the air vent slots into the three posts inside the air exhaust cover. *DO NOT tighten the three screws yet.*

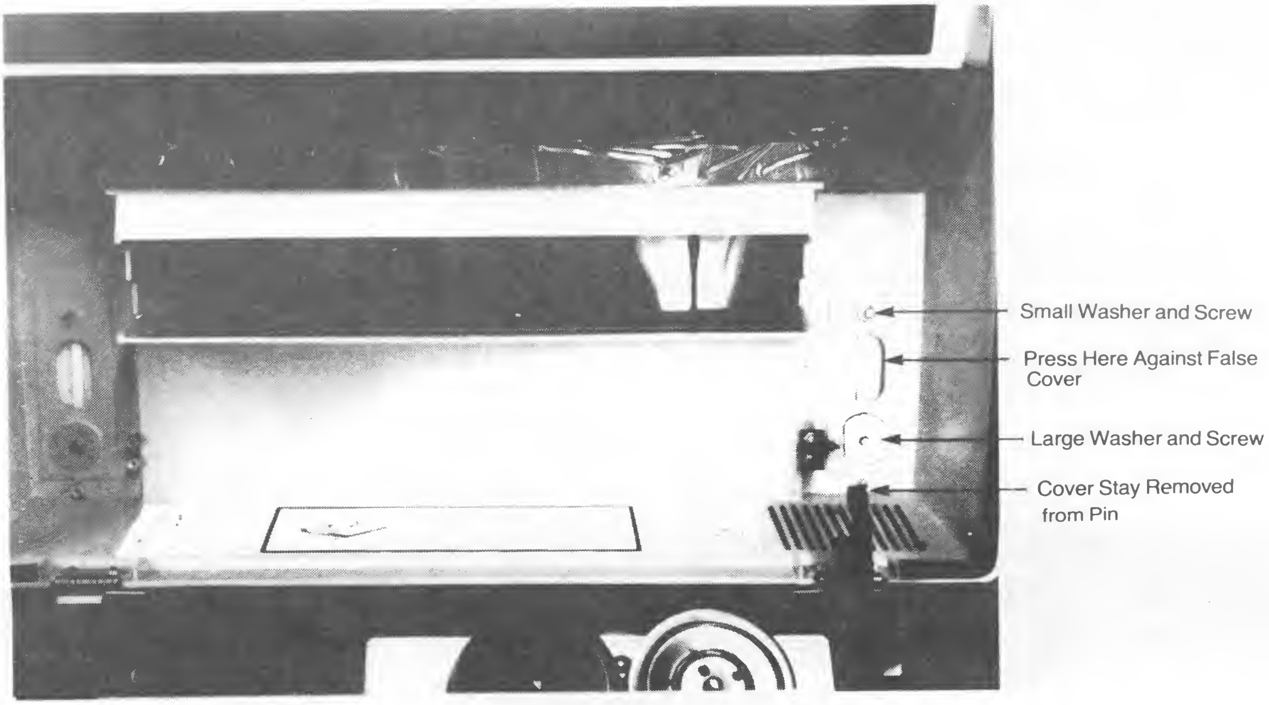

Figure 2. View Inside Terminal Cover

2206552-65

(6) Lower the terminal cover toward its normal closed position so that you may view the placement of the air exhaust cover; the top of the air exhaust cover should be aligned with the surface of the ribbed, paper passage area of the terminal cover (see Figure 1). Carefully slide the air exhaust cover up or down as necessary.

(7) Lift the terminal cover sufficiently to tighten the three air exhaust cover attach screws. DO NOT overtighten the screws; damage to the vent slots may occur. Proceed to damper installation (below).

2.3 DAMPER

The damper is attached to the top of the terminal cover in the position shown in Figure 1.

a. Lift the terminal cover and press against the inside of the left side "false cover" until it unsnaps. Repeat for the right side "false cover" (see Figure 2).

b. Place the damper in approximate position atop the terminal cover. Manually holding the damper against the terminal cover, lay the terminal cover back on its hinges until the cover rests upside down on the table top.

c. Move the damper as necessary to align its four screw holes under the two square holes and two round holes in the terminal cover.

d. Install two screws and the two **small** washers through the two round holes in the terminal cover. *Do not overtighten the screws.*

e. Place one **large** washer over the right side square hole in the terminal cover. Orient the washer so that the flat on the washer is aligned toward the *inside* of the terminal as shown in Figure 2. The washer must be positioned in this manner to permit replacement of the plastic cover stay over the stay pin. Insert the screw and tighten slightly.

f. Attach the damper through the left side square hole using the other large washer and remaining screw. Orientation of the left-side large washer is not important.

g. Rotate the cover back near its normally closed position, lift about 45 degrees, and reconnect the cover stay to its stay pin.

2.4 FINAL STEPS

a. If applicable, replace the terminal on its accessory stand or table and reattach all fasteners removed in paragragh **2.1**.

b. Reinstall the ribbon and paper and reconnect the power cord and communications cable.

The terminal should now be ready for regular service.

TI PUBLICATION 0999937-9701
ISSUED 1 NOVEMBER 1978
REVISION B

INSTALLATION INSTRUCTIONS
*OMNI 800** MODEL 820 KSR DATA TERMINAL TERMINAL PAPER BASKET

PART NO. 0999838-0001

GENERAL

The Terminal Basket Kit consists of the basket and all necessary hardware to attach the paper basket to the Model 820 KSR terminal.

INSTALLATION

1. Lift the cover of Model 820 KSR and disconnect the cover stay (located in right rear of printer) by moving top of stay to right and off of pivot pin attached to cover (see Figure 1). DO NOT let cover open more than 90° to base.
2. Attach ground cable (location: inside right rear of printer) by faston connection on one end and using lockwasher and nut on other end as shown (see Figure 2).
3. Attach stay (which was disconnected in Step 1) to cover and close printer.
4. Insert basket hooks into slotted holes in rear of printer and rotate down into rest position (see Figure 3).

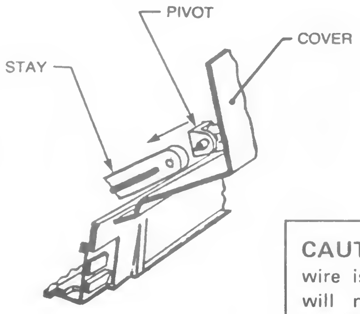

FIGURE 1

CAUTION: If the ground wire is not connected, paper will not properly fold into the basket and erratic terminal operation may occur.

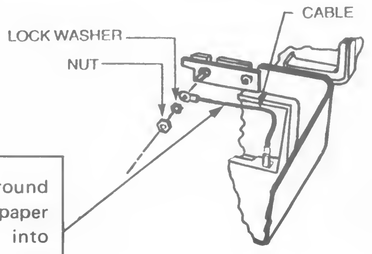

FIGURE 2

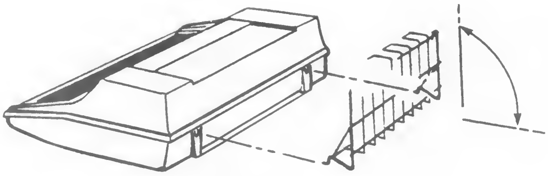

FIGURE 3

2206552-66

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TI PUBLICATION 999940-9701
ISSUED 1 OCTOBER 1978
REVISION A

INSTALLATION INSTRUCTIONS
*OMNI 800** TERMINAL STAND PAPER BASKET

PART NO. 999839-0001

1. GENERAL

The Terminal Stand Paper Basket kit consists of the paper basket and static ground cable for attachment to the Texas Instruments *Omni 800** printer terminal stand.

2. INSTALLATION

These instructions explain how to attach the paper basket to the terminal stand. Refer to the figure and proceed as follows:

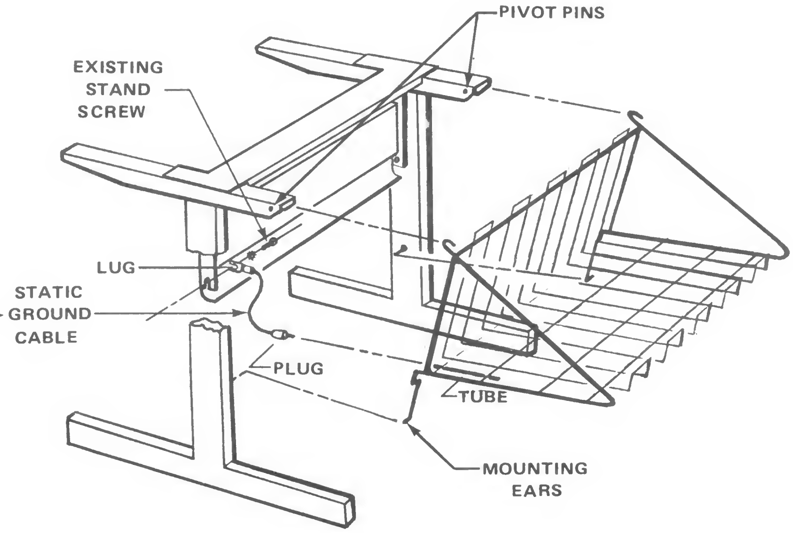
a. Remove the existing stand screw from stand.

b. Attach the static ground cable lug to the stand using the existing stand screw removed in step a.

c. Attach the paper basket by hooking the basket onto the terminal stand pivot pins. Then rotate the basket downward, deflect basket mounting ears inward, and insert the ears into the holes in the terminal stand legs.

d. Connect the ground cable banana plug into the tube on the basket as shown in the figure.

CAUTION: If the ground wire is not connected, paper will not properly fold into the basket and erratic terminal operation may occur.



*Omni 800** **Terminal Stand Paper Basket**

2206552-67

*Trademark of Texas Instruments

TEXAS INSTRUMENTS
INCORPORATED

TI Publication 2207627-9701
Issued 30 June 1979

INSTALLATION INSTRUCTIONS

DEVICE/FORMS CONTROL ROM OPTION KIT

MODEL 820 KSR/RO TERMINALS
MODEL 825 KSR/RO TERMINALS

Factory Installed Kit Part Number 999836-0001
Field Installed Kit Part Number 999836-8001

1.0 GENERAL

The Device/Forms Control Option Kit consists of a TI No. 2207626-0001 pre-programmed ROM which is installed on the main electronic Printed Wiring Board (PWB). These installation instructions explain how to install the kit.

2.0 INSTALLATION

To install the Device/Forms Control Option Kit in the TI Model 820/825 Terminals follow the procedures detailed in steps a. through r. Steps aa. through qq. detail the reassembly procedures. Figure 1 illustrates the physical placement of the ROM.

WARNING

Disconnect Power Cord to prevent posible electrical shock and equipment damage.

2.1 PREPARE THE TERMINAL FOR KIT INSTALLATION AS FOLLOWS:

a. Unplug the power cord from the power receptacle at the rear of the terminal.

b. Open the terminal cover by grasping the right and left front corners and gently lifting until the cover will rise no further. A plastic stay at the inside right rear holds the cover open at 45 degrees from horizontal.

c. While holding the terminal cover with one hand, grasp the top of the plastic stay with the other hand and move the stay to the right until it clears the mounting pin.

d. Holding the stay clear of the pin, the terminal cover can now be swung back until it rests on the desk or table-top in a fully opened position.

e. Remove the keyboard bezel by grasping the extreme right and left edges and lifting up.

f. Manually move the printhead all the way to the right of the platen.

g. Using a standard slot screwdriver, disengage the four retainer feet at the front of the keyboard plenum from under the top front of the terminal case.

h. Grasping the right and left front edges of the keyboard plenum, raise the front of the plenum approximately 10 degrees to clear the plenum retainer feet.

i. While supporting the plenum at approximately 10 degrees, disengage the three rear feet beginning at the right rear.

j. Lift the plenum clear of the terminal with slight forward motion and set it aside.

k. Remove the 33 mm (1¼ inch) wide sheet metal ground strap attached to the front left corner of the keyboard PWB by pulling it down and away from the plastic connector.

l. Loosen the four keyboard PWB keepers along the rear edge of the PWB, using both hands to press in at the base of the keepers while lifting the keyboard slightly.

m. Lift the tach motor cable, paper drive motor cable, and ribbon drive motor out of the keyboard keeper.

n. Remove the 25-conductor ribbon cable from its connector on the Keyboard PWB.

o. Lift the keyboard assembly up from the rear and set the assembly aside.

p. The main electronic PWB is now accessible for kit installation.

q. Refer to Figure 1. The Device/Forms Control Option Kit is installed by placing the pre-programmed ROM (TI No. 2207626-0001) in socket XU-12.

r. The MFG area of the printer configuration label, already affixed inside the rear cover of the terminal should be checked (✓). This will indicate the terminal configuration to other users.

2.2 TO RETURN THE TERMINAL TO OPERATION AFTER KIT INSTALLATION PROCEED IN THE FOLLOWING MANNER:

aa. Install the keyboard assembly, reinserting the four PWB keepers.

CAUTION

Ensure that all cables are firmly seated or the machine will not operate properly.

bb. Reconnect the 25-conductor ribbon cable to the Keyboard PWB.

cc. Replace the tach motor cable, paper drive motor cable, and ribbon drive motor cable back into their holders.

dd. Reconnect the ground strap to the front left corner of the Keyboard PWB.

ee. Verify that the printhead is positioned all the way to the right of the platen.

ff. Verify that the cable from the mechanism to the PWB is routed correctly and secured properly.

gg. Grasp the edges of the plenum and insert the rear of the plenum between the printhead and cables, ensuring that the plenum fits over the rear fan plenum housing.

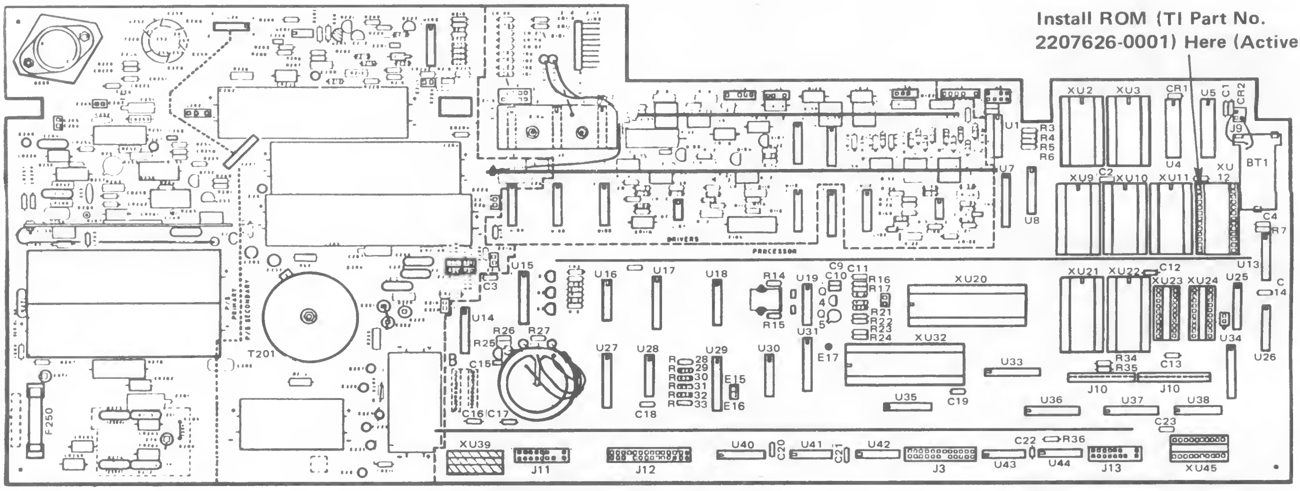
hh. Lift the front of the plenum approximately 10 degrees and insert the three rear tabs into their respective slots inside the terminal.

ii. Gently push the front of the fan plenum down until it rests on the four front retaining tabs.

jj. Using a standard slot screwdriver, engage the retaining tabs into their respective catches.

kk. Replace the keyboard bezel.

ll. Holding the terminal cover with your left hand and the plastic stay attached to the inside right rear of the cover with your right hand, return the cover to an approximate 45 degree position.



Install ROM (TI Part No. 2207626-0001) Here (Active)

2206552-68

Figure 1. Physical Placement of Installed ROM Kit. (Device/Forms Control Option)

mm. Supporting the terminal cover with the plastic stay, align the mounting pin with the stay and engage he plastic stay into the mounting pin.

nn. Close the terminal cover by gently pushing the cover down until the closures snap shut.

oo. Plug the power cord into the power receptacle at the rear of the Model 820/825.

pp. Plug the power cord into the primary electrical power receptacle.

qq. The terminal is now ready for normal operation.

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TEXAS INSTRUMENTS
INCORPORATED

TI Publication 2207629-9701
Issued 30 June 1979

INSTALLATION INSTRUCTIONS

CONFIGURATION PROM KIT OR PROTECTED ABM PROM KIT

MODEL 820 KSR/RO TERMINALS
MODEL 825 KSR/RO TERMINALS
Factory Installed Kit Part Number 2207630-0001
Field Installed Kit Part Number 2207630-8001

1.0 GENERAL

The Configuration PROM Kit consists of two TI No. 2207628 Programmed Configuration PROMs which are installed on the main electronic Printed Wiring Board (PWB); and a TI No. 999931 Configuration PROM Kit label which indicates the PROM Configuration. The label is affixed inside the terminal cover. One of the two configuration PROMs will be active when installed; the other is for use as a spare.

2.0 INSTALLATION

To install the Configuration PROM Kit in the Model 820/825 Terminals follow the procedures detailed in steps a. through r. Steps aa. through rr. detail the reassembly procedures. Figure 1 illustrates the physical placement of the PROMs.

WARNING

Disconnect Power Cord to prevent possible electrical shock and equipment damage.

2.1 PREPARE THE TERMINAL FOR KIT INSTALLATION AS FOLLOWS:

a. Unplug the power cord from the power receptacle at the rear of the terminal.

b. Open the terminal cover by grasping the right and left front corners and gently lifting until the cover will rise no further. A plastic stay at the inside right rear holds the cover open at approximately 45 degrees from horizontal.

c. While holding the terminal cover with one hand, grasp the top of the plastic stay with the other hand and move the stay to the right until it clears the mounting pin.

d. Holding the stay clear of the pin, the terminal cover can now be swung back until it rests on the desk or table-top in a fully opened position.

e. Remove the keyboard bezel by grasping the extreme right and left edges and lifting up.

f. Manually move the printhead all the way to the right of the platen.

g. Using a standard slot screwdriver, disengage the four retainer feet at the front of the keyboard plenum from under the top front of the terminal case.

h. Grasping the right and left front edges of the keyboard plenum, raise the front of the plenum approximately 10 degrees to clear the plenum retainer feet.

i. While supporting the plenum at approximately 10 degrees, disengage the three rear feet beginning at the right rear.

j. Lift the plenum clear of the terminal with slight forward motion and set it aside.

k. Remove the 33 mm (1¼ inch) wide sheet metal ground strap attached to the front left corner of the keyboard PWB by pulling it down and away from the plastic connector.

l. Loosen the four keyboard PWB keepers along the rear edge of the PWB, using both hands to press in at the base of the keepers while lifting the keyboard slightly.

m. Lift the tach motor cable, paper drive motor cable, and ribbon drive motor out of the keyboard keeper.

n. Remove the 25-conductor ribbon cable from its connector on the Keyboard PWB.

o. Lift the keyboard assembly up from the rear and set the assembly aside.

p. The main electronic PWB is now accessible for kit installation.

q. Refer to Figure 1. The Configuration PROM Kit is installed by placing the programmed PROM (TI No. 2207628) in socket XU-24 and a spare PROM in socket XU-45.

r. The label supplied with the Configuration PROM Kit should be affixed to the inside terminal cover, right-hand side. This will indicate the terminal configuration to other users.

2.2 TO RETURN THE TERMINAL TO OPERATION AFTER KIT INSTALLATION PROCEED IN THE FOLLOWING MANNER:

aa. Install the keyboard assembly, reinserting the four keyboard PWB keepers.

CAUTION

Ensure that all cables are firmly seated or the machine will not operate properly.

bb. Reconnect the 25-conductor ribbon cable to the Keyboard PWB.

cc. Replace the tach motor cable, paper drive motor cable, and ribbon drive motor cable back into their holders.

dd. Reconnect the ground strap to the front left corner of the Keyboard PWB.

ee. Verify that the printhead is positioned all the way to the right of the platen.

ff. Verify that the cable from the mechansim to the PWB is routed correctly and secured properly.

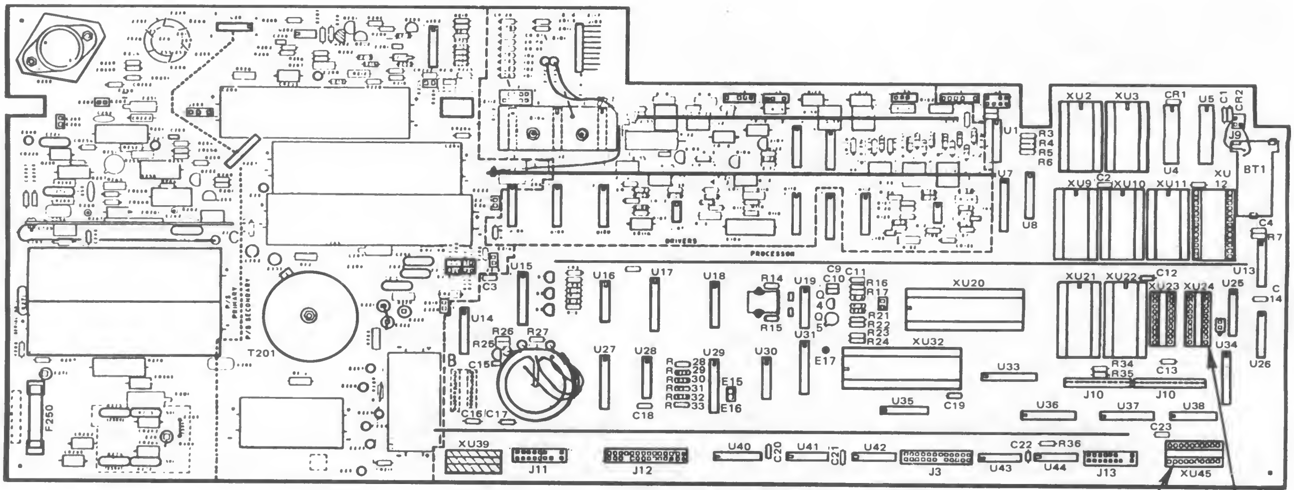
gg. Grasp the edges of the plenum and insert the rear of the plenum between the printhead and cables, ensuring that the plenum fits over the rear fan plenum housing.

hh. Lift the front of the plenum approximately 10 degrees and insert the three rear tabs into their respective slots inside the terminal.

ii. Gently push the front of the fan plenum down until it rests on the four front retaining tabs.

jj. Using a standard slot screwdriver, engage the retaining tabs into their respective catches.

kk. Replace the keyboard bezel.



Install PROM (TI Part No. 2207628) Here (Spare)

Install PROM (TI Part No. 2207628) Here (Active)

2206552-69

Figure 1. Physical Placement of Installed PROM's. (Configuration PROM and/or Protected ABM PROM Kit)

ll. Affix Configuration PROM label (TI No. 999931) to inside right-hand side of terminal cover.

mm. Holding the terminal cover with your left hand and the plastic stay attached to the inside right rear of the cover with your right hand, return the cover to an approximate 45 degree position.

nn. Supporting the terminal cover with the plastic stay, align the mounting pin with the stay and engage the plastic stay into the mounting pin.

oo. Close the terminal cover by gently pushing the cover down until the closures snap shut.

pp. Plug the power cord into the power receptacle at the rear of the Model 820/825.

qq. Plug the power cord into the primary electrical power receptacle.

rr. The terminal is now ready for normal operation.

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TEXAS INSTRUMENTS
INCORPORATED

TI Publication 2206533-9701
Issued 30 July 1979

INSTALLATION INSTRUCTIONS
OMNI 800 MODEL 820/825 DATA TERMINALS
CURRENT LOOP OPTION
Part No. 0999734-8001

1.0 GENERAL

The current loop option kit contains the PWB assembly, internal and external cables and all the necessary hardware to install the option into the Model 820/825 Terminal. The electrical specifications of the current loop option are:

Transmitter

- Nominal Current: 20 MA DC
- Maximum Current Capability: 100 MA DC
- Maximum Voltage Drop When On (Marking): 1.0 VDC, 20 MA
- Maximum Leakage Current When Off (Spacing): 0.5 MA, 50 VDC
- Maximum Common Mode Voltage: Same as Receiver

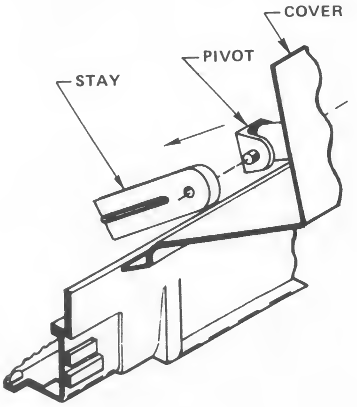
Receiver

- Nominal Current: 20 MA DC
- Threshold (Decision) Current: 12 +/− 3.5 MA
- Maximum Voltage Drop: 3.0 VDC at 20 MA
- Maximum Current Rating: 100 MA DC Continuous
- Maximum Common Mode Voltage: 50 VDC, continuous or switched at the configured transmission rate, will not cause errors in received data

2.0 INSTALLATION

1. Unplug power cord.

2. Lift the cover of Model 820/825 and disconnect the cover stay (located in right rear of printer) by moving top of stay to right and off of pivot pin attached to cover (see Figure 1). DO NOT let cover open more than 90° to base.



2206552-70

Figure 1. Terminal Cover Stay Detail

3. Remove the keyboard bezel by grasping the extreme right and left edges and lifting up the bezel.

4. Remove the keyboard plenum as follows:

   a. Manually move the printhead to the right approximately 4 inches to the right of the center of the platen.

   b. Using a standard slot screwdriver, disengage the four retainer clips at the front of the keyboard plenum.

   c. Grasping the right and left front edges of the keyboard plenum, raise the front of the plenum approximately 10 degrees to clear the clip latches.

   d. While supporting the plenum at approximately 10 degrees, disengage the three rear latches beginning with right rear latch.

   e. Lift the plenum clear of the terminal with slight forward motion and set it aside.

5. Remove keyboard assembly as follows:

   a. Remove the 33 mm (1¼ inch) wide sheet metal ground strap attached to the front left corner of the keyboard PWB by pulling it down and away from the plastic connector.

   b. Loosen the four keyboard PWB keepers along the rear edge of the PWB, using both hands to press in at the base of the keepers while lifting the keyboard slightly.

   c. Lift the tach motor cable, paper drive motor cable, and ribbon drive motor out of their cable retainers on the rear of keepers.

   d. Remove the 25-conductor ribbon cable from its connector on the Keyboard PWB.

   e. Snap the keyboard keepers up and away from the keyboard

   f. Lift the keyboard assembly up from the rear and remove the keyboard PWB out of its plastic support frame.

6. Remove standard EIA cable assembly from terminal as follows:

   a. Remove mechanism ground wire (and paper basket ground wire if so equipped) from quick disconnect plugs at EIA cable panel mounting screws located inside right rear corner of case. (Refer to Figure 2).

   b. Using a standard slot screwdriver, remove the two EIA panel mounting screws, lockwashers and quick disconnect lugs. Set hardware aside to be reused for option panel installation.

   c. Disconnect EIA cable P3 from main PWB J3 and remove cable from retaining clip on front right side of case.

   d. Remove EIA cable and panel from molded I/O port by pushing down on panel while guiding cable through molded recess.

7. Install current loop option internal cable and panel as follows:

   a. Insert cable through molded panel opening from rear of terminal.

   b. Insert panel into molded slot, slide up into case while guiding cable wires past molded recess, and reinstall screws, lockwashers, and quick disconnect lugs removed in 6 b above.

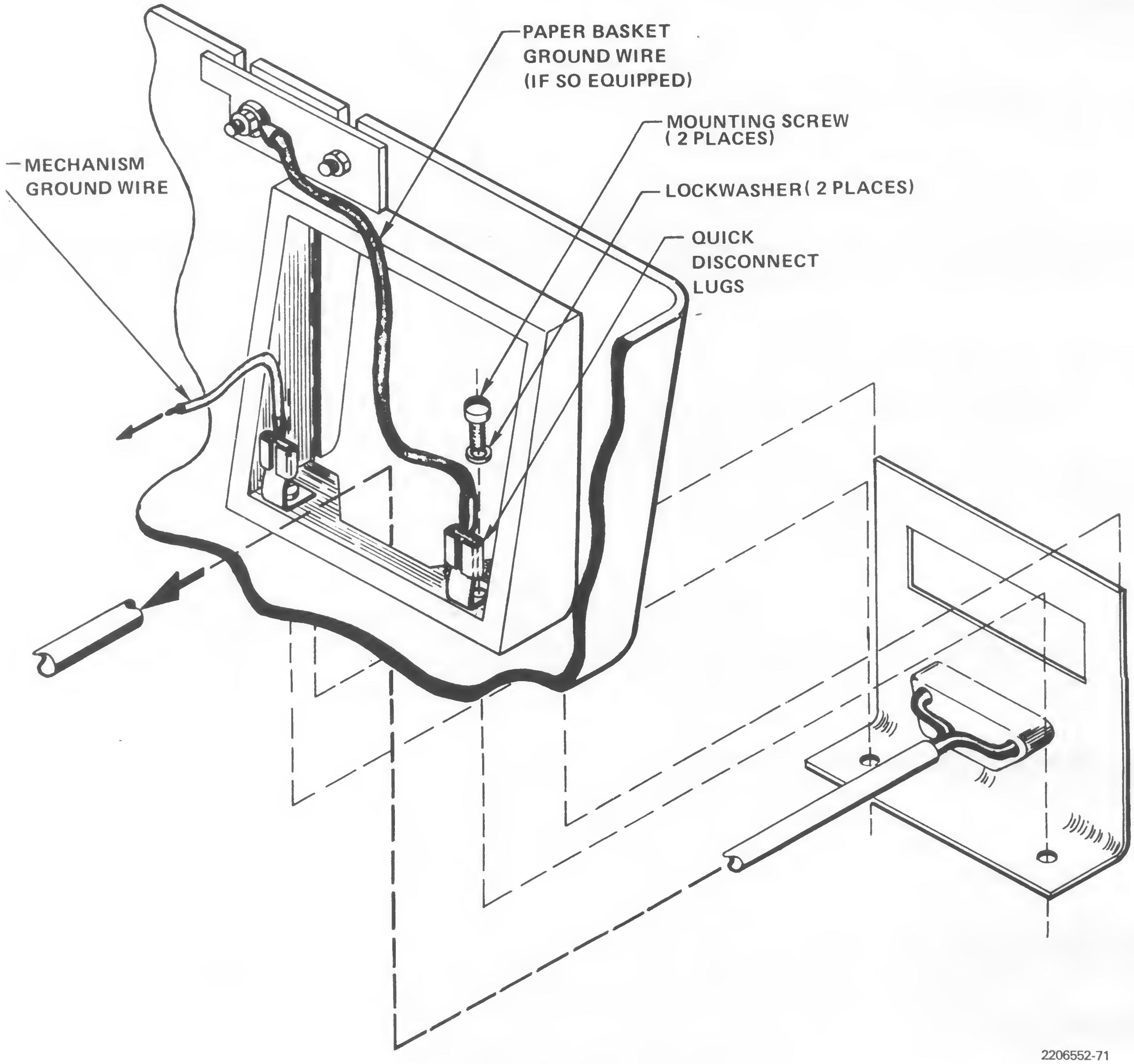
c. Route cable along lower right side of case. Install P3 end into retaining clip on front right side of case and connect P3 to main PWB J3. (Refer to Figure 3)

d. Install mechanism ground wire (and paper basket ground wire if so equipped) onto quick disconnect plugs at EIA cable panel mounting screws.

Install current loop option PWB as follows:

a. Install current loop option PWB into plastic support frame as shown in Figure 3.

b. Connect current loop option power cable assembly (flat flex cable) between main PWB J13 and option PWB J30.


PAPER BASKET GROUND WIRE (IF SO EQUIPPED)
MOUNTING SCREW (2 PLACES)
LOCKWASHER(2 PLACES)
QUICK DISCONNECT LUGS
MECHANISM GROUND WIRE

2206552-71

Figure 2. Pictorial Wiring Diagram

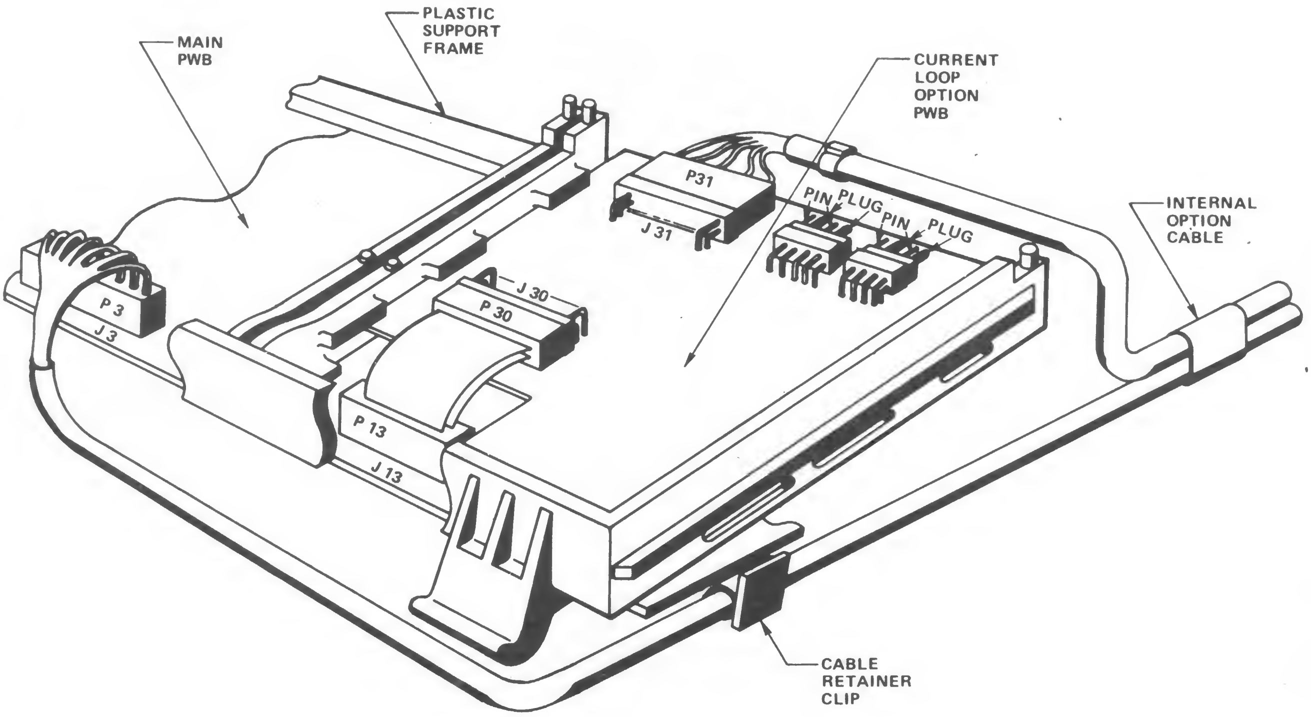


Figure 3. Cable Wiring Detail

9. Replace the keyboard assembly as follows:
    a. Place the keyboard PWB into plastic support frame and snap the four keepers back in place.
    b. Replace the tach motor cable, paper drive motor cable, and ribbon drive motor cable back into their cable retainers on the rear of keepers. Check each cable connection to main PWB.
    c. Route P31 end of current loop option cable with tach motor cable bundle and install P31 to current loop PWB J31.
    d. Reconnect the 25-conductor ribbon cable to the keyboard PWB.
    e. Reconnect the ground strap to the front left corner of keyboard PWB.
10. Replace the keyboard plenum as follows:
    a. Verify that the printhead is positioned approximately 4 inches to the right of the center of the platen.
    b. Verify that the cable from the mechanism to the PWB is routed correctly and secured properly.
    c. Grasp the edges of the plenum and insert the rear of the plenum between the printhead and cables, ensuring that the plenum fits over the rear fan plenum housing.

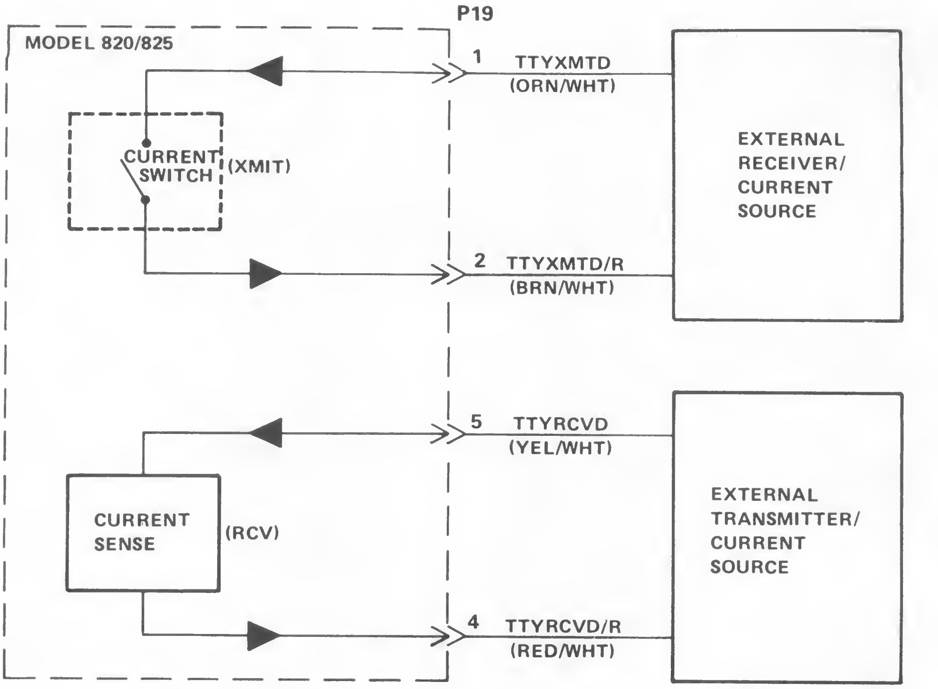


FIGURE 4A. FOUR WIRE FULL DUPLEX

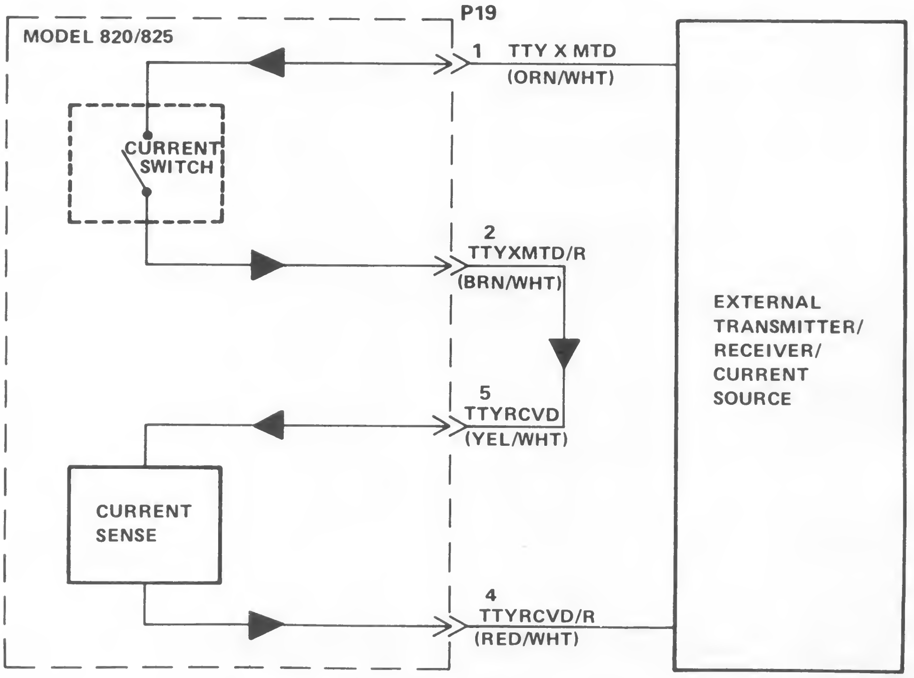


FIGURE 4B. TWO WIRE HALF DUPLEX

Figure 4. Model 820 Current Loop Configurations

d. Lift the front of the plenum approximately 10 degrees and insert the three rear tabs into their respective slots inside the terminal.

e. Gently push the front of the plenum down until it rests on the four front retaining tabs.

f. Using a standard slot screwdriver, engage the retaining tabs into their respective latches.

g. Replace the keyboard bezel.

11. Install external cable and shorting plug as follows:

a. An external shorting plug completes the circuit between the current loop PWB and the terminal electronics PWB. For current loop operation the shorting plug must be installed to the 25-pin connector located on the rear of the terminal.

b. A 6-foot cable is provided to connect the Model 820 to the communication line. The cable consists of a 9 pin connector for connection at the rear of the terminal and four spade lugs at the other end of the cable.

c. Table 1 shows the interface cable pin assignments.

d. The four spade lugs should be connected to the external communication line as described in Figure 4. This figure shows the connection for the four wire full duplex or the 2 wire "half duplex" configurations.

12. a. Mark CTY communications option on configuration label located inside terminal cover rear wall.

Table 1. Standard dc-Current Loop Interface Cable Pin Assignments (Cable Part No. 994403)

P19 Connector To Model 820/825	Cable Termination	Function
P19-1	TTYXMTD (Orn/White Wire)	Transmitted Data Current Input
P19-2	TTYXMTD/R (Brn/White Wire)	Transmitted Data Current Output
P19-5	TTYRCVD (Yel/White Wire)	Received Data Current Input
P19-4	TTYRCVD/R (Red/White Wire)	Received Data Current Output

TI Publication 2207439-9701
Issued 15 August 1979

INSTALLATION INSTRUCTIONS
EUROPEAN CHARACTER SET OPTIONS
MODEL 820 KSR/RO AND 825 KSR/RO TERMINALS

MODEL	CHARACTER SET OPTION	KSR		RO	
		FACTORY INSTALLED KIT PART NUMBER	FIELD INSTALLED KIT PART NUMBER	FACTORY INSTALLED KIT PART NUMBER	FIELD INSTALLED KIT PART NUMBER
820	UK	2206525-0001	2206525-8001	2206525-0002	2206525-8002
	Sweden/Finland	2206526-0001	2206526-8001	2206526-0002	2206526-8002
	Denmark/Norway	2206527-0001	2206527-8001	2206527-0002	2206527-8002
	France	2206528-0001	2206528-8001	2206528-0002	2206528-8002
	Germany	2206529-0001	2206529-8001	2206529-0002	2206529-8002
825	UK	2207441-0001	2207441-8001	2207441-0002	2207441-8002
	Sweden/Finland	2207442-0001	2207442-8001	2207442-0002	2207442-8002
	Denmark/Norway	2207443-0001	2207443-8001	2207443-0002	2207443-8002
	France	2207444-0001	2207444-8001	2207444-0002	2207444-8002
	Germany	2207445-0001	2207445-8001	2207445-0002	2207445-8002

1.0 GENERAL

The European Character Set Option Kit consists of a TI pre-programmed PROM which is installed on the main electronic Printed Wiring Board (PWB), and an arrangement of European Keytops which replace the existing keyboard keytop scheme when installed on a KSR terminal. These installation instructions explain how to install the kit.

2.0 INSTALLATION

To install the European Character Set Option Kit in the TI Model 820/825 Terminals follow the procedures detailed in steps a. through s. Steps aa. through qq. detail the reassembly procedures. Figure 1 illustrates the physical placement of the PROM. Figures 2 through 6 illustrate the keytop changes to be made on KSR keyboards.

WARNING

Disconnect Power Cord to prevent possible electrical shock and equipment damage.

2.1 PREPARE THE TERMINAL FOR KIT INSTALLATION AS FOLLOWS:

a. Unplug the power cord from the power receptacle at the rear of the tereminal.

b. Open the terminal cover by grasping the right and left front corners and gently lifting until the cover will rise no further. A plastic stay at the inside right rear holds the cover open at 45 degrees from horizontal.

c. While holding the terminal cover with one hand, grasp the top of the plastic stay with the other hand and move the stay to the right until it clears the mounting pin.

d. Holding the stay clear of the pin, the terminal cover can now be swung back until it rests on the desk or table-top in a fully opened position.

e. Remove the keyboard bezel by grasping the extreme right and left edges and lifting up.

f. Manually move the printhead all the way to the right of the platen.

g. Using a standard slot screwdriver, disengage the four retainer feet at the front of the keyboard plenum from under the top front of the terminal case.

h. Grasping the right and left front edges of the keyboard plenum, raise the front of the plenum approximately 10 degrees to clear the plenum retainer feet.

i. While supporting the plenum at approximately 10 degrees, disengage the three rear feet beginning at the right rear.

j. Lift the plenum clear of the terminal with slight forward motion and set it aside.

k. Remove the 33 mm (1¼ inch) wide sheet metal ground strap attach to the front left corner of the keyboard PWB by pulling it down and away from the plastic connector.

l. Loosen the four keyboard PWB keepers along the rear edge of the PWB, using both hands to press in at the base of the keepers while lifting the keyboard slightly.

m. Lift the tach motor cable, paper drive motor cable, and ribbon drive motor cable out of the keyboard keeper.

n. Remove the 25-conductor ribbon cable from its connector on the keyboard PWB.

o. Lift the keyboard assembly up from the rear and set the assembly aside.

p. The main electronic PWB is now accessible for kit installation.

q. Refer to Figure 1. The kit is installed by placing the supplied PROM in socket XU-23. If there is already a PROM installed in XU-23, remove it and replace it with the supplied PROM.

r. KSR Only: Some character set kits require replacement and/or rearrangement of keyboard keycaps. Remove the existing keycap(s) as indicated on the illustration and rearrange as shown in the appropriate figure (2 through 6).

s. The appropriate area of the printer configuration label, already affixed inside the rear cover of the terminal should be checked (✓). Refer to figures 2 through 6 for appropriate marking. Example: (UKF) for English. This will indicate the terminal configuration to other users.

2.2 TO RETURN THE TERMINAL TO OPERATION AFTER KIT INSTALLATION PROCEED IN THE FOLLOWING MANNER:

aa. Install the keyboard assembly, reinserting the four PWB keepers.

CAUTION

Ensure that all cables are firmly seated or the machine will not operate properly.

bb. Reconnect the 25-conductor ribbon cable to the keyboard PWB.

cc. Replace the tach motor cable, paper drive motor cable, and ribbon drive motor cable back into their holders.

ee. Verify that the printhead is positioned all the way to the right of the platen.

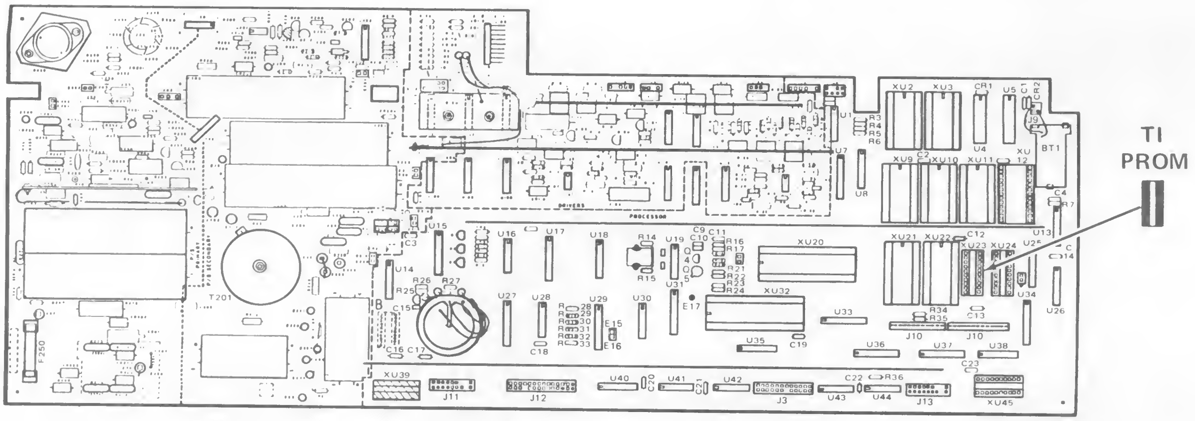


Figure 1. PROM Installation Diagram

2206552-75

Keytop	TI Part No.
£ 3	2210282-0009

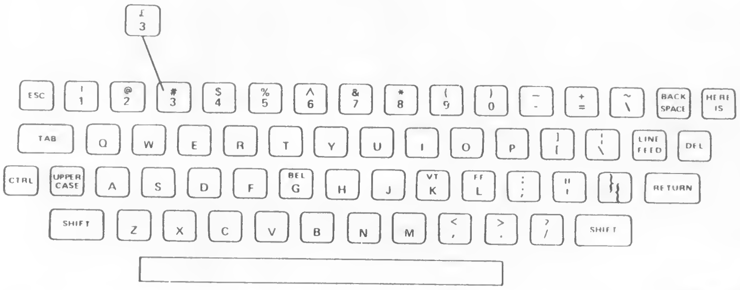


Figure 2. English Keyboard (UKF)

2206552-76

Keytop	TI Part No.
Å	2210282-0002
" '	(Keyboard)
Æ	2210282-0003
Ø	2210282-0008
: ;	(Keyboard)

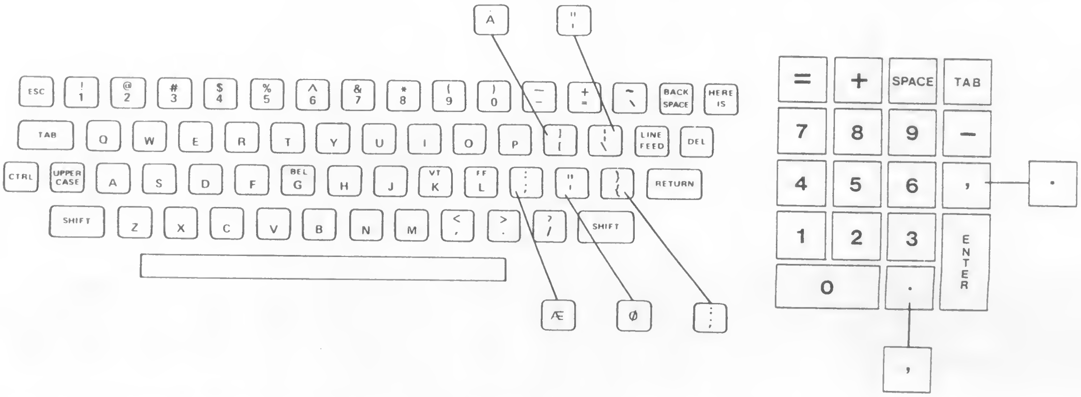


Figure 3. Danish/Norwegian keyboard (DNF) and Optional Numeric Pad

2206552-77

Keytop	TI Part No.
Å	2210282-0002
" '	(Keyboard)
\ ü	2210282-0001
Ö	2210282-0005
Ä	2210282-0004
: ;	(Keyboard)

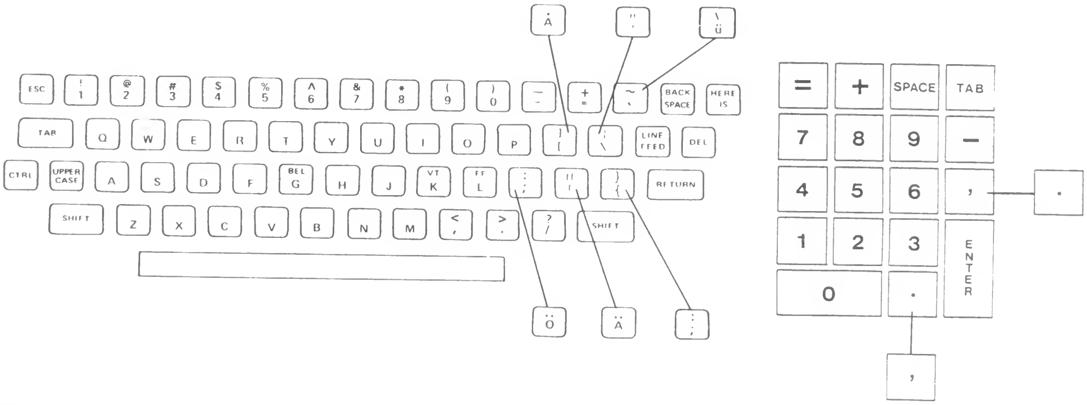

Å
"
'
\
ü
ESC ! 1 @ 2 # 3 $ 4 % 5 ^ 6 & 7 * 8 (9) 0 — - + = ~ ` BACK SPACE HERE IS
TAB Q W E R T Y U I O P] [' \ LINE FEED DEL
CTRL UPPER CASE A S D F BEL G H J VT K FF L : ; " ' } { RETURN
SHIFT Z X C V B N M < , > . ? / SHIFT
Ö
Ä
:
;
= + SPACE TAB
7 8 9 —
4 5 6 ,
1 2 3 ENTER
0 .
.
,

Figure 4. Swedish/Finnish Keyboard (SFF) and Optional Numeric Pad

2206552-78

Keytop	TI Part No.
Q	(Keyboard)
A	(Keyboard)
Z	(Keyboard)
W	(Keyboard)
: ;	(Keyboard)
M	(Keyboard)

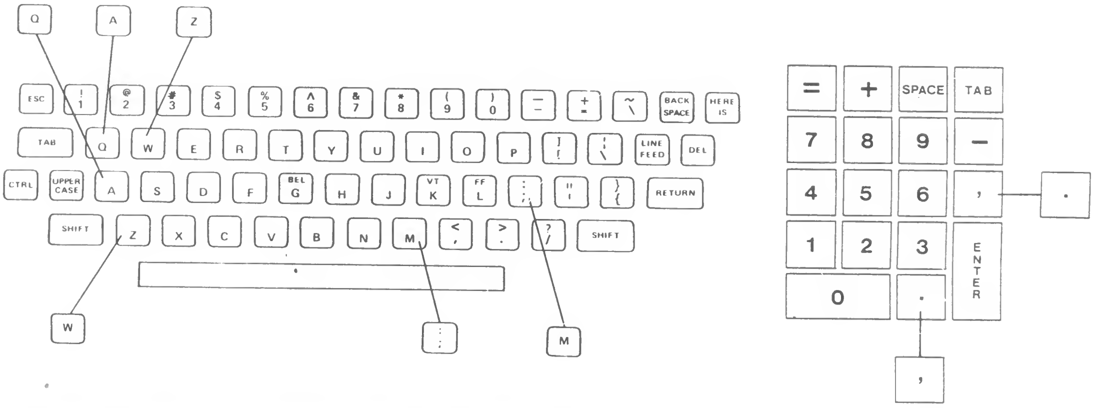

Q
A
Z
ESC ! 1 @ 2 # 3 $ 4 % 5 ^ 6 & 7 * 8 (9) 0 — - + = ~ \ BACK SPACE HERE IS
TAB Q W E R T Y U I O P] [' \ LINE FEED DEL
CTRL UPPER CASE A S D F BEL G H J VT K FF L : ; " ' } { RETURN
SHIFT Z X C V B N M < , > . ? / SHIFT
W
:
;
M
= + SPACE TAB
7 8 9 —
4 5 6 ,
1 2 3 ENTER
0 .
.
,

Figure 5. French Keyboard (FRF) and Optional Numeric Pad

2206552-79

Keytop	TI Part No.
\ β	2210282-0007
" '	(Keyboard)
Ü	2210282-0006
Z	(Keyboard)
Y	(Keyboard)
Ö	2210282-0005
Ä	2210282-0004
? /	(Keyboard)

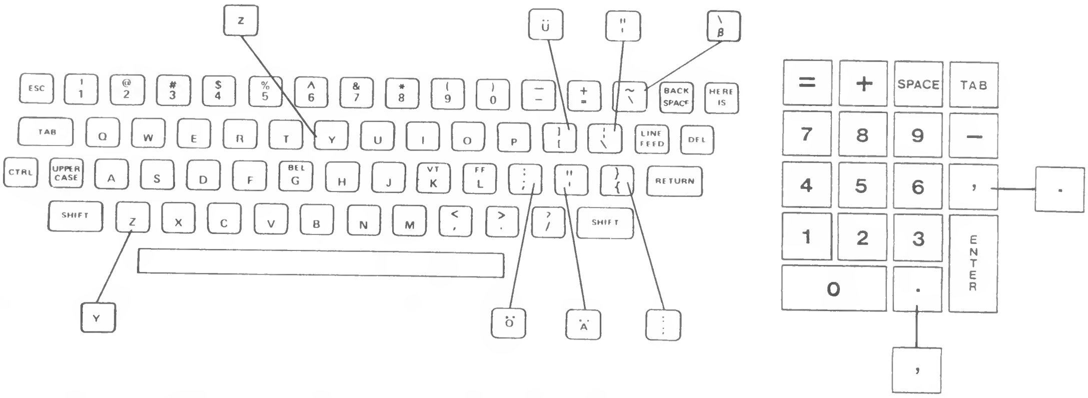

Z
Ü
"
'
\
β
ESC ! 1 @ 2 # 3 $ 4 % 5 ^ 6 & 7 * 8 (9) 0 — - + = ~ \ BACK SPACE HERE IS
TAB Q W E R T Y U I O P] [' \ LINE FEED DEL
CTRL UPPER CASE A S D F BEL G H J VT K FF L : ; " ' } { RETURN
SHIFT Z X C V B N M < , > . ? / SHIFT
Y
Ö
Ä
:
;
= + SPACE TAB
7 8 9 —
4 5 6 ,
1 2 3 ENTER
0 .
.
,

Figure 6. German Keyboard (GRF) and Optional Numeric Pad

2206552-80

ff. Verify that the cable from the mechanism to the PWB Is routed correctly and secured properly.

gg. Grasp the edges of the plenum and insert the rear of the plenum between the printhead and cables, ensuring that the plenum fits over the rear fan plenum housing.

hh. Lift the front of the plenum approximately 10 degrees and insert the three rear tabs into their respective lots inside the terminal.

ii. Gently push the front of the fan plenum down until it rests on the four front retaining tabs.

jj. Using a standard slot screwdriver, engage the retaining tabs into their respective catches.

kk. Replace the keyboard bezel.

ll. Verify that the appropriate area of the printer configuration label has been checked (✓). Refer to figures 2 through 6 for appropriate marking. Example: (UKF) for English.

mm. Holding the terminal cover with your left hand and the plastic stay attached to the inside right rear of the cover with your right hand, return the cover to an approximate 45 degree position.

nn. Supporting the terminal cover with the plastic stay, align the mounting pin with the stay and engage the plastic stay into the mounting pin.

oo. Close the terminal cover by gently pushing the cover down until the closures snap shut.

pp. Plug the power cord into the power receptacle at the rear of the Model 820/825.

qq. Plug the power cord into the primary electrical power receptacle.

rr. The terminal is now ready for normal operation.

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Appendix F

Glossary of Model 820/825 KSR and RO Signal Mnemonics

NOTE

Signal mnemonics followed by a trailing dash (—) indicate that the signal is active when low (logic ZERO). All other signals are active when high (logic ONE).

Mnemonic	Description
A0 through A15	Address bus
A10—	Inverted address line 10
ACC1	Acceleration 1 (carriage motor)
ACC2	Acceleration 2 (carriage motor)
AC COMMON	ac neutral (input power)
AC LINE	ac line (input power)
BA	Transmitted data (EIA RS-232-C)
BA0 through BA7	Buffered address lines 0 — 7
BAUDCLK	Baud rate clock
BD0 through BD7	Buffered data bus
BDIRECT—	Buffered carriage motor direction indicator
BELL	Bell enable
BIE2	Buffered interrupt enable 2
BIORQ—	Buffered I/O request cycle
BM1—	Buffered op code fetch cycle
BOSC	Buffered clock oscillator
BRD—	Buffered memory read cycle
BSENSOR—	Buffered sensor pulses
BWR—	Buffered memory write cycle
BX1	Buffered X1
BX2—	Buffered and inverted X2
CA	Request to send (EIA RS-232-C)
CARDET—	Data carrier detect (received line signal detector)
CC	Data set ready (EIA RS-232-C)
CD	Data terminal ready (EIA RS-232-C)
CE	Ring indicator (EIA RS-232-C)
CH	Data signal rate selector (EIA RS-232-C)
CHASSIS GND #1 through #3	Chassis ground networks

Mnemonic	**Description**
CLK—	System clock
CLK/2	System clock x 1/2
CLKMOS	System clock
CLRDOTS	Dot latch clear
CMFWD	Forward movement command
CMOSRAMSEL—	CMOS RAM select
CMTRA	Carriage motor power
CMTRB	Carriage motor power
COCHR	Compressed print indicator
CTS—	Clear to send
D0 through D7	Data bus
DIRECT	Carriage motor direction indicator
DFWT	Forward tachometer direction
DOT1 through DOT8	Solenoid logic signals (printhead)
DSR—	Data set ready
DTACH	Sensor tachometer pulses
DTR—	Data terminal ready
DX—	Tachometer state variable
DY—	Tachometer state variable
FAN	Fan supply
FAN—	Fan supply
FWD	Carriage motor forward
GO—	Wait state variable
IE1	Interrupt enable 1
IE2	Interrupt enable 2
IE3	Interrupt enable 3
INT—	Interrupt request line
IO0—	I/O device 0 (output latch) select
IO1—	I/O device 1 (carriage/paper motor latch) select
IO2—	I/O device 2 (keyboard row latch) select
IO3—	I/O device 3 (ribbon/row latch) select
IO4—	I/O device 4 (dot latch) select
IO6—	I/O device 6 (keyboard buffer) select
IO7—	I/O device 7 (misc. buffer) select
IORQ—	I/O request cycle
KDB0 through KDB7	Keyboard data bus
LCTS—	Clear to Send
LDCD—	Data carrier detect
LOOPBACK	Loopback select
LRXD	Received data
LTXD	Transmitted data
MREQ—	Memory request cycle
M1—	Op code fetch cycle

Mnemonic	Description
OSC	Clock oscillator
P0A through P0D	Paper phase A, B, C, D (logic)
PAPOUT—	Paper out signal (logic)
PAPOUTSW	Paper out switch signal
PDMCC	Paper drive motor current control
PDRV	Ribbon drive
PPHSA through PPHSD	Paper phase A, B, C, D (power)
PROM 1 SEL—	PROM 1 select (Option PROM)
PROM 2 SEL—	PROM 2 select (Option PROM)
PWRGOOD	Power good
RAM 1 SEL—	RAM 1 select
RAM 2 SEL—	RAM 2 select
RD—	Memory read cycle
RI—	Ring indicator
RIBREV—	Ribbon reverse (logic)
RIBREVSW	Ribbon reverse (power)
ROM 1 SEL—	ROM 1 (operating system) select
ROM 2 SEL—	ROM 2 (operating system) select
ROM 3 SEL—	ROM3 (dot ROM) select
ROM 4 SEL—	ROM 4 (DFC option ROM) select
RTS—	Request to send
RXD	Received data
R0 through R11	Keyboard row select lines
R0A through R0D	Ribbon motor phases A through D (logic)
RATE—	Data signal rate selector
RDRV	Ribbon drive
READ OPTION—	Option board data direction control
REV	Carriage motor reverse
RPHSA through RPHSD	Ribbon motor phases A through D (power)
SCA	Secondary request to send (EIA RS-232-C)
SCARDET—	Secondary data carrier detect
SCF	Secondary line signal detector, secondary data carrier detect (EIA RS-232-C)
SENSOR	Sensor pulses
SF1 through SF8	Solenoid drive signals (printhead)
SHIELD	Ground shield
STPTFG	System test print flag
STPWRGOOD—	System test power good indicator
SRTS—	Secondary request to send
SYSTSTINT—	System test (nonmaskable) interrupt
T0A1 through T0A2	Tachometer pulses (normal)
T0B1 through T0B2	Tachometer pulses (compressed)
TXD	Transmitted data
WAIT—	Wait (CPU)
WAIT GEN	Wait generator
WR—	Memory write cycle

Mnemonic	**Description**
X1	Spare outputs
X2	Spare outputs
Z1	Spare input
+5 V	+5 volt supply
+5 VDVR	+5 volt drivers
+5 VSW	+5 volt switched
+5.1 VCR	+5.1 volt reference
+12 V	+12 volt supply
−12 V	−12 volt supply
+33 V	+33 volt supply
+33 VHD	+33 volt printhead
+33 VMTR	+33 volt motor
+33 VMTRFZD	+33 volt motor, fused
162 VDC	+162 volts dc
325 VDC	+325 volts dc

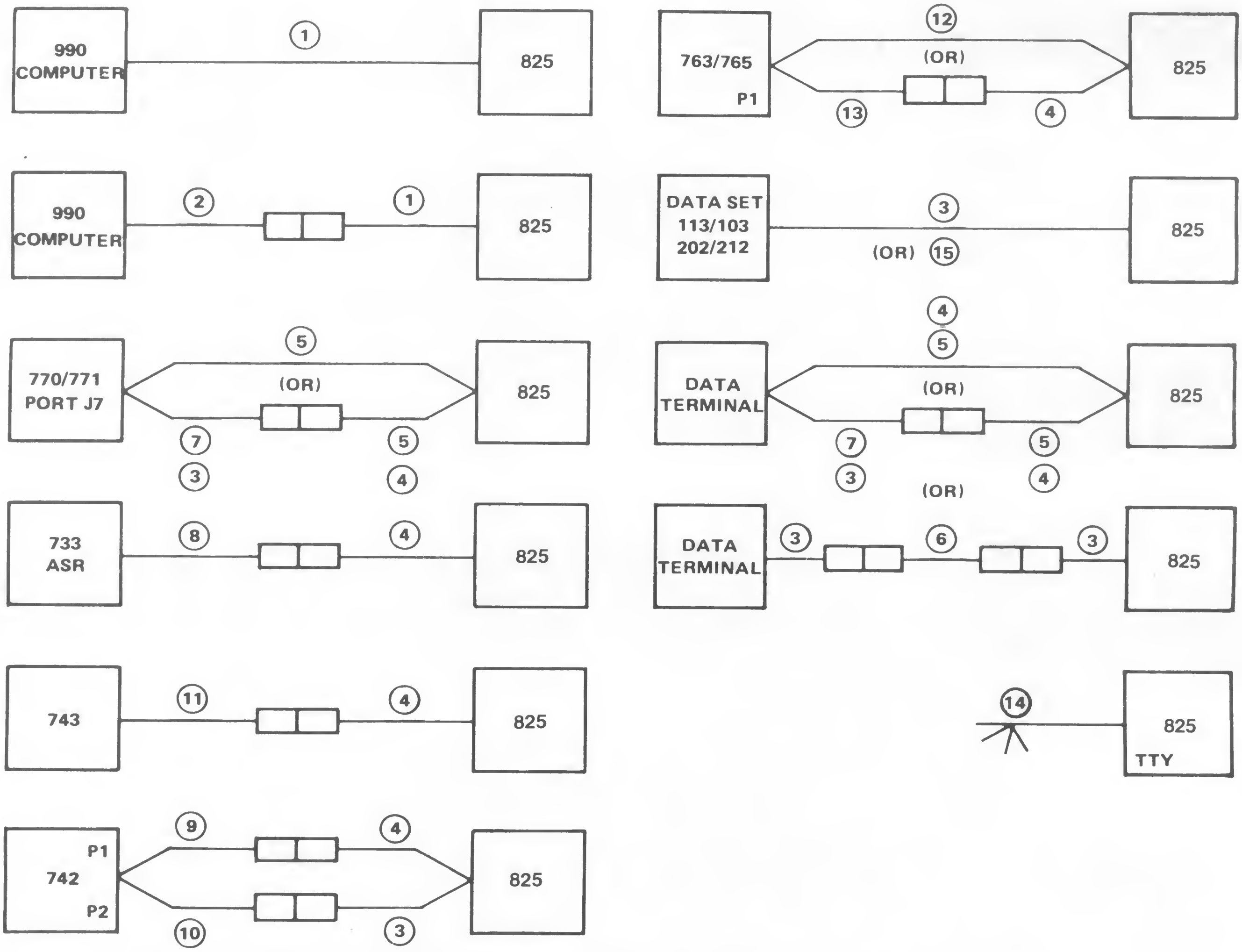
APPENDIX G
RECOMMENDED DATA SET OPTIONS AND CABLING INFORMATION

Table G-1. Recommended Data Set Option

103J

Modem Option	Recommended Setting
Receive space disconnect	Either — T or U
Send space disconnect	Either — V or Y
Loss of carrier disconnect	Either — S or R
CC Indication	Early — ZD
CB and CF indications	Common — A
CC indication for analog loop	On — ZF
Automatic answer	Yes — ZH
Failsafe state of CN circuit	Off — J
Common ringer	Either — ZB or ZA
Common grounds	Yes — Q
Tip ring make busy	No — E

Table G-2. Summary of Cables



Item	Part Number	Description	825 Connector Type	Device Connector Type	Length Meters	Length Feet
1	2262093-0001	990 TTY/EIA To 820 Cable	25 Pin Male	25 Pin Male	9.1	30
2	2262094-0001	990 Extension - 820 Cable	25 Pin Male	25 Pin Female	1.8	6
3	993205-0001	113A/103/202/212 Data Set	25 Pin Male	25 Pin Male	1.8	6
4	993210-0001	Data Terminal Cable	25 Pin Male	25 Pin Female	1.8	6
5	993239-0001	770 Data Terminal Cable	25 Pin Male	25 Pin Male	1.8	6
6	2263351-0001	Terminal Adapter Cable	25 Pin Female	25 Pin Female	1.8	6
7	993211-0001	EIA Extension Cable (25 wires)	25 Pin Male	25 Pin Female	1.8	6
8	959372-0002	733 EIA Cable	25 Pin Male	25 Pin Edge	1.8	6
9	969626-0001	742 EIA Cable	25 Pin Male	10 Pin Dual Edge Connector		
10	973265-0001	742 Auxiliary Cable	25 Pin Female	15 Pin Dual Edge Connector	1.8 3.7	6 12
11	983848-0001	743 EIA Cable	25 Pin Male	15 Pin Female	1.8	6
12	2263350-0001	763/765 Data Terminal Cable	25 Pin Male	15 Pin Female	1.8	6
13	2200051-0001	763/765 Data Set Cable	25 Pin Male	15 Pin Female	1.8	6
14	994403-0001	TTY Current Loop Cable	—	—	1.8	6
15	2207634-0001	Asynch/Synch EIA Cable	25 Pin Male	25 Pin Male	1.8	6

Table G-3. 113A/103 Data Set Cable (TI Part No. 993205-0001)

820 Pin P6-P7 (Male)	Data Set Pin (Male)	RS-232-C Circuit	Function
1	1	AA	Protective Ground
2	2	BA	Transmitted Data
3	3	BB	Received Data
4	4	CA	Request to Send
5	5	CB	Clear to Send
6	6	CC	Data Set Ready
7	7	AB	Signal Ground
8	8	CF	Received Line Signal Detector
11	11	SCA	Secondary Request to Send (Reverse Channel Transmit)
12	12	SCF	Secondary Received Line Signal Detector (Reverse Channel Receive)
20	20	CD	Data Terminal Ready
22	22	CE	Ring Indicator

Table G-4. **Data Terminal Cable**
(TI Part No. 0993210-0001)

Reference:	Pin	RS-232-C Circuit	Function
(Either End)	1	AA	Protective Ground
	2	BA	Transmitted Data
	3	BB	Received Data
	4	CA	Request to Send
	5	CB	Clear to Send
	6	CC	Data Set Ready
	7	AB	Signal Ground
	8	CF	Data Carrier Detect
	11	SCA	Reverse Channel Transmit
	12	SCF	Reverse Channel Receive
	15	DB	Tranmsission Signal Element Timing
	17	DD	Receive Signal Element Timing
	20	CD	Data Terminal Ready
	24	AUXLIO	Auxiliary Input/Output Control

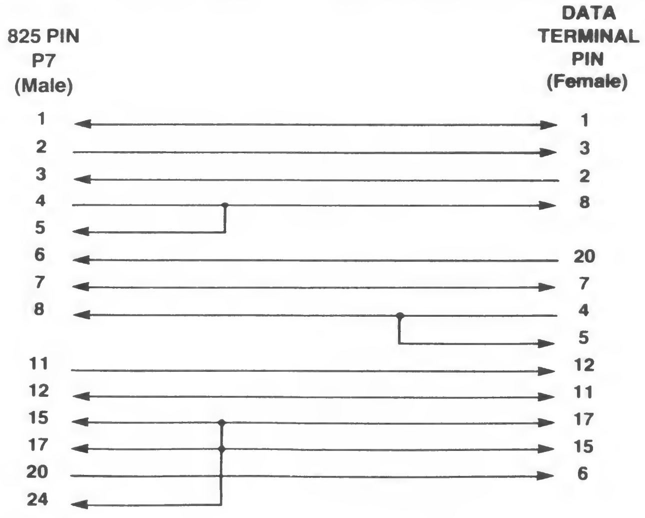


Table G-5. **770 Data Terminal Cable**
(TI Part Number 993239-0001)

Reference:	**Pin**	**RS-232-C Circuit**	**Function**
(Either End)	1	AA	Protective Ground
	2	BA	Transmitted Data
	3	BB	Received Data
	4	CA	Request to Send
	5	CB	Clear to Send
	6	CC	Data Set Ready
	7	AB	Signal Ground
	8	CF	Data Carrier Detect
	11	SCA	Reverse Channel Transmit
	12	SCF	Reverse Channel Receive
	15	DB	Tranmsission Signal Element Timing
	17	DD	Receive Signal Element Timing
	20	CD	Data Terminal Ready
	24	AUXLIO	Auxiliary Input/Output Control

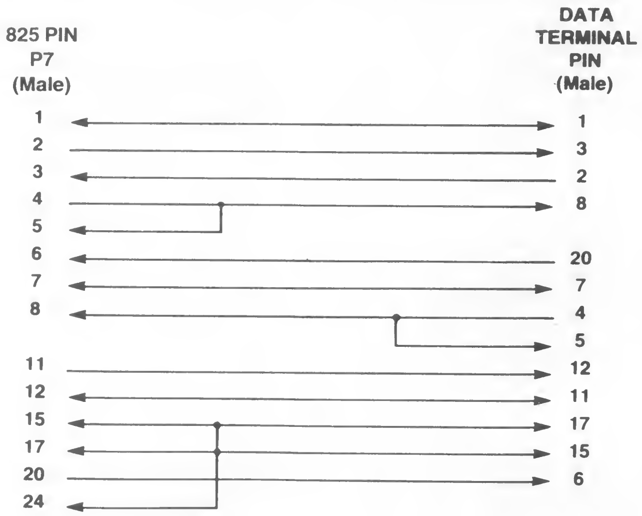


Table G-6. **Terminal Adapter Cable Pin Assignments**
(TI Part No. 2263351-0001)

Reference:	**Pin**	**EIA RS-232-C Circuit**	**Function**
(Either End)	1	AA	Protective Ground
	2	BA	Transmitted Data
	3	BB	Received Data
	4	CA	Request to Send
	5	CB	Clear to Send
	6	CC	Data Set Ready
	7	AB	Signal Ground
	8	CF	Data Carrier Detect
	11	SCA	Reverse Channel Transmit
	12	SCF	Reverse Channel Receive
	15	DB	Transmission Signal Element Timing
	17	DD	Receive Signal Element Timing
	20	CD	Data Terminal Ready
	24	AUXLIO	Auxiliary Input/Output Control

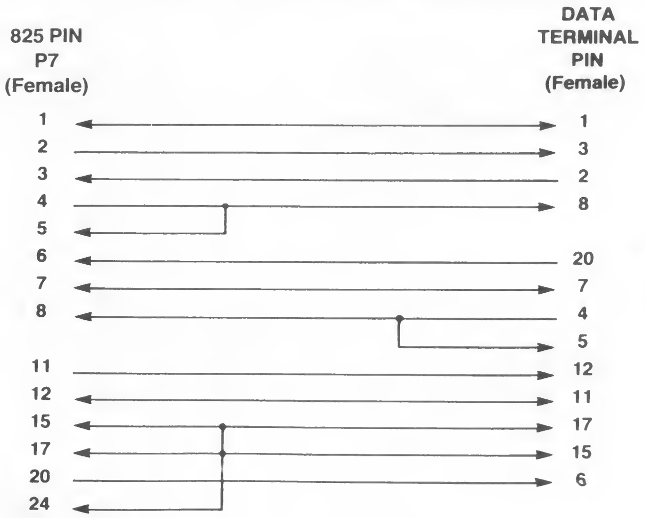


Table G-7. **742 Terminal Cable**
(TI Part Number 969626-0001)

825 Pin P13	742 P1	RS-232-C Circuit	Function
1	A	AA	Protective Ground
2	H	BA	Transmitted Data
3	10	BB	Received Data
4	F	CA	Request to Send
5	8	CB	Clear to Send
6	9	CC	Data Set Ready
7	7	AB	Signal Ground
8	K	CF	Received Line Signal Detector
11	5	SCA	Secondary Request to Send
12	4	SCF	Secondary Received Line Signal Detector
20	6	CD	Data Terminal Ready
22	J	CE	Ring Indicator

Table G-8. **742 Auxiliary Cable**
(TI Part Number 973265-0001)

825 Pin P13	742 Pin P2	RS-232-C Circuit	Function
3	11	BB	Received Data
4		CA	Request to Send
5		CB	Clear to Send
6		CC	Data Set Ready
7	1	AB	Signal Ground
8		CF	Received Line Signal Detector
11	12	SCA	Secondary Request to Send
12	13	SCF	Secondary Received Line Signal Detector
20		CD	Data Terminal Ready

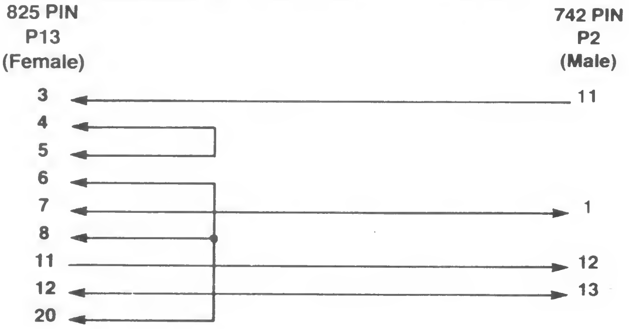


Table G- **743 Terminal Cable**
(TI Part Number 983848-0001)

825 Pin P2	743 Pin P1	RS-232-C Circuit	Function
1	9	AA	Protective Ground
2	13	BA	Transmitted Data
3	12	BB	Received Data
4	10	CA	Request to Send
7	1	AB	Signal Ground
8	11	CF	Received Line Signal Detector
20	15	CD	Data Terminal Ready

Table G-10. **763/765 Data Terminal Cable Pin Assignments**
(TI Part No. 2263350-0001)

763/765 Terminal Connector (P1)	825 Terminal Connector	Function	763/765 Circuit	
			EIA	C.C.I.T.T.
−1	−1	PG	AA	101
−2	−11	CTS	CB	106
−3	−2	RCV	BB	104
−4	−4 and −5	DCD	CF	109
−8	−6	DTR	CD	108.2
−9	−20 and −8	DSR/CCT	CC	107
−14	−3	XMT	BA	103
−15	−7	SG	AB	102

Table G-11. TTY Current Loop Interface Cable P/N 994403-0001

825 Pin	Retainer Clip	Function
1	E2	TTY Transmitted Data
2	E1	TTY Transmitted Data Return
4	E4	TTY Received Data Return
5	E3	TTY Received Data

Table G-12. **Asynch/Synch EIA Cable (TI Part Number 2207634-0001)**

825 Pin (Male)	**Data Set Pin (Male)**	**RS-232-C Circuit**	**Function**
1	1	AA	Protective Ground
2	2	BA	Transmitted Data
3	3	BB	Received Data
4	4	CA	Request to Send
5	5	CB	Clear to Send
6	6	CC	Data Set Ready
7	7	AB	Signal Ground
8	8	CF	Received Line Signal Detector
11	11	SCA	Secondary Request to Send
12	12	SCF	Secondary Received Line Signal Detector
15	15	DB	Transmission Signal Element Timing
17	17	DD	Receiver Signal Element Timing
20	20	CD	Data Terminal Ready
22	22	CE	Ring Indicator
23	23	CH	Data Signal Rate Selector (DTE)

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Part No. 2206552-9701, Revision B

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